THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

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WHEAT CULTURE.

Sir Humphrey Davy says: "The exportation of grain from a country which receives nothing in exchange that can be turned into manure, must exhaust the soil in the long run;" and this illustrious chemist expresses the opinion that the present sterility of various parts of northern Africa and Asia Minor, as well as Sicily, is to be ascribed to excessive cropping without manuring the land. In an instructive chapter on "Rotation of Crops," Boussingault remarks: "When a succession of crops is grown upon fertile land without renewal of manure, the produce gradually diminishes; and after a certain period, if it be grain, the quantity which at the outset was eight or nine times the amount of the seed, will be reduced to three times or even to twice the seed. Thus crops impair the soil, and ultimately exhaust it." In another place, this writer informs us that he saw fields which had borne good crops of wheat every year for two centuries, on the table lands of Peru, which were doubtless fertilized with guano. An interesting letter from Wm. G. Morehead, late U. S. Consul at Valparaiso, recently published in the Philadelphia North American, furnishes important information as to the cheapness of wheat in Chili, which is about to be sent in the shape of flour, to California and the Sandwich Islands, in great quantities. Mr. M. states that the first shipment of flour to California will take place within a few weeks, and thereafter regularly, commencing with 25,000 bbls. a month, and adds—

"The harvest that has just been secured (I am informed,) has well rewarded the husbandman, the crop being very large. The price of wheat is therefore comparatively low, 26 to 31½ cents per bushel in the interior, on delivery at the mills. I obtained from a gentleman of high character, who is perfectly conversant with the subject, the following information: At Conception and vicinity, there are ten first rate flour mills, the machinery for which was obtained in the United States, and, with the exception of two, are owned and managed by Americans and Englishmen. The average monthly product of these mills is about 30,000 bbls. of superfine flour for export, which, in quality, is regarded as being equal to the best flour manufactured in the United States. Between Conception and Santiago there are two good mills, which manufacture for export some 4000 to 5000 bbls. per month; and at the capital, Santiago, there are five or six establishments of considerable extent, engaged in manufacturing for export, which together produce from 18,000 to 20,000 bbls. monthly; besides which there are a large number of small mills engaged in manufacturing for home consumption. Thus it appears that there are produced monthly in Chili some 50,000 to 55,000 barrels of superfine flour for export, all of which must find markets in the Pacific — the principal being California.

"The great fluctuations that have so frequently occurred in that market during the past year, the price of flour varying from less than the cost of placing it there to $30, $40, and even $50 per bbl., have induced the millers to enter into the arrangement alluded to above, by which they (the millers) bind themselves to supply this company the entire product of their mills, at the price of $4,44 per bbl. delivered in the warehouse, for shipment. The company have a large and commodious warehouse at San Francisco, at which they are bound to keep a regular and constant supply of flour, adequate at all times to meet the demand, and to dispose of the same at a moderate profit — thus securing to the citizens of California a supply of the staff of life at a low price.

"The consumption of that market is estimated by these gentlemen to be not less than 25,000 bbls. per month at present, calculating an increase of say 5000 bbls. per month. I consider it important that the above facts should be generally known throughout the United States of America, that persons who may be induced (by the recent extravagant price of flour) to ship to California, can do so understandingly."

The Nicaragua treaty between England and the United States having for its object the construction of a ship canal between the Atlantic and Pacific, will secure the speedy construction of that long talked of and magnificent work, and bring the guanoed wheat fields of Chili and Peru several thousand miles nearer the ports of Mobile, Savannah, and Charleston, which import both northern flour from New York and western from New Orleans. We learn from the Journal of Commerce, that three ships laden with Egyptian wheat are on their way from Cairo to this country—the owners of this grain expecting to pay 20 cents a bushel duty on its admission. Wheat has been cheaper in England within the last six months than in one hundred and fifty years; and fair harvests this autumn in Europe, will reduce the market value of breadstuffs to a still lower figure.

Wheat growers that have a surplus to sell will doubtless act wisely to place their crop in market as

soon after harvest as practical. The price is now high, and must continue until new wheat is offered.

It is a matter of considerable importance that the most economical process of tillage, seeding, gathering, threshing, and cleaning wheat, be adopted. No operation has paid better than sub-soil plowing in England; and the use of reapers is just beginning to attract the attention of English farmers. Messrs. RAPALJE & BRIGGS, extensive dealers in agricultural implements in Rochester, have just filled an order for one of Hussey's Reapers, to go to Liverpool; and other American implements are in use both in the British Islands and on the Continent, with entire satisfaction. Our farmers are most deficient in feeding wheat plants with their natural and appropriate food. Little is thought of beyond the application of lime, gypsum, turning in clover or some other green crop. The elements of wheat contained in all the grain, meat, milk, cheese, potatoes, and other articles of human consumption, annually wasted in this country, are fully equal to the production of 12 bushels of wheat to each person in the United States. At this estimate the aggregate would be 264,000,000 bushels from the fertilizers now thrown away. More thorough culture, greater care in saving and applying manures, and better attention to the extirpation of all weeds, like red root, Canada thistles, cockle, chess, garlick, and the like pests, will improve the quality and intrinsic value of this important staple. At the present writing, wheat is backward but very promising in Western New York.

PATENT OFFICE REPORT.—Part II.

Suggestions for the Improvement of Agriculture.

SIR: Agreeably to your request, I have prepared, and have the honor herewith to submit, a report on the statistics and progress of Agriculture in the United States for the year 1849.

The communications received in answer to the circulars issued from the Patent Office in the usual form, number some four hundred. Not a few of these are extended essays, and all contain useful facts or suggestions, which have been gratuitously furnished by the contributors. To publish the whole would require two large volumes, in place of one of moderate size; and to reject three-fourths of the matter in hand seemed a poor return to the many gentlemen, in almost every State, who have kindly proffered their services to promote the most important interest of the republic.

Under these circumstances, it was thought not amiss to re-write and greatly condense three-fourths of the letters and essays intended for the report. This labor has been great, but it has saved some $10,000 in printing, and it is hoped with improvement to the document, and without doing injustice to any correspondent.

The undersigned deems it not out of place in submitting this report, to offer a few suggestions in reference to the ways and means now available for the improvement of American agriculture.

1.—AGRICULTURAL EDUCATION.

Since 1823, when Judge BUEL introduced the first bill to establish an agricultural college in the State of New York by legislative aid, constant efforts have been made to render the study of rural economy as a *science*, not less than its practice as an *art*, popular in this country Twenty-seven years have now elapsed, a whole generation has passed off the stage, and New York, with her five hundred thousand cultivators of the soil, is still without the first agricultural school worthy of the name; nor is any other State in a better condition. Dark as this view of agricultural education really is, it is the darkness that precedes the dawn of a bright and happy day. Men who have labored for the improvement of agriculture and the elevation of agriculturists, for a quarter of a century, with little of hope and less of pecuniary reward, now realize the beginning of an auspicious change in public sentiment. Thanks to agricultural journals and societies, the people will soon discover that labor and capital devoted to tillage and husbandry are as worthy of legislative consideration as labor and capital employed in mining, commerce, and manufactures. So soon as this truth shall be fairly comprehended, the long struggles of the friends of improvement will be crowned with success, and the victory won over both ignorance and its traditions.

It is indeed wonderful how long those enlightened, reasoning farmers, who, like Washington, cherish a due respect for their high calling, have had to beg, and beg in vain, of State Legislatures and of Congress, for a little assistance to prevent the universal impoverishment of American soils. Whatever has been done to arrest the exhaustion of arated lands, has been effected not only without due aid from Government, but in spite of a mistaken policy which encouraged the removal of all the elements of bread and meat from cultivated fields, and their speedy transportation beyond the possibility of restitution. Neither the earnest recommendation of the illustrious farmer of Mount Vernon, nor the prayers of two generations of agriculturists, nor the painful fact that nearly all tilled lands were becoming less and less productive, could induce any Legislature to foster the study of agriculture as a *science*. Happily, this term, when used in connexion with rural affairs, is no longer the subject of ridicule.

Some pains have been taken in this report, to prove that one thousand millions of dollars judiciously expended, will hardly restore the one hundred millions of acres of partially exhausted lands in the Union to that richness of mold and strength of fertility for permanent cropping which they possessed in their primitive state.

The continued fruitfulness of the earth is an interest far greater and more enduring than any form of government.

If the twenty-two millions of people now in the United States may rightfully exhaust the natural fertility of one-third of the arable lands of the country, the forty-four millions who will be here twenty-five years hence may properly consume the productiveness of the remaining two-thirds of all American territory.

A great principle is involved in the science of agriculture, which reaches through indefinite generations, and forms the basis of all possible improvements and of the highest hopes of our race. All advancement is impracticable in a country that closely approximates the condition of a desert.

As a nation of farmers, is it not time that we inquire by what *means*, and on what *terms*, the fruitfulness of the earth and the health and vigor of its invaluable products may be forever maintained, if not forever improved?

These are questions of universal concernment, to the careful and rigid investigation of which no man

should refuse to lend a listening ear. A governmental policy which results in impoverishing the natural fertility of land, no matter by what popular name it is called, must have an end. It is only a question of *time*, when this truly spendthrift course, this abuse of the goodness of Providence, shall meet its inevitable punishment. To show the necessity of reform, a plain estimate has been made, in the chapter on "agricultural statistics," to prove that we annually waste enough of the elements of bread, without which not the first kernel of corn can be formed, to produce one thousand million bushels of this important staple.

The Board of Agriculture of Ohio estimates the crop of corn in 1849, within the limits of that State, at seventy million bushels; and it will hardly be extravagant to say, that the farmers of Ohio, Indiana, Michigan, Illinois, and Wisconsin, export a million tons of breadstuffs and provisions, where they import one ton of the atoms drawn from their virgin soils, to form agricultural products. Can it be said, in truth, that a million tons of bread and meat are produced from *nothing?* Will it be contended that the earth within the reach of good plowing contains an unlimited amount of the precise things consumed to make the plants, whose organic an inorganic elements are taken from the soil, and never restored? If this be true, then all fertilizers are not only unnecessary, but absolutely worthless. This cannot be so; for lands that seventy years ago produced from twenty-five to thirty-five bushels of wheat in the State of New York, now yield only from six to nine bushels per acre; and in all the old planting States the results of exhaustion are still more extensive and still more disastrous.

A lack of mental culture and discipline is the most serious impediment to the diffusion of agricultural science among the mass of farmers. Its language is to them an unknown tongue. Hence, the most sublime truths in the economy of nature are shut out from the popular understanding. It is feared that this will ever be the case until schools designed to teach those branches of learning which the practical farmer greatly needs, but does not possess, are established and maintained throughout the United States. So long as we refuse to plant the seed, it is folly to expect a rich harvest of knowledge.

We over-estimate the value of mere physical strength, like that of the ox or mule, and under-estimate the intrinsic worth of cultivated, well-developed Reason, in practical agriculture. No inconsiderable degree of mental culture must precede all scientific tillage and husbandry. An oak is not matured from an acorn in a day, nor in a year; nor is it possible to form, in a single generation, an universally educated and highly improved race of men. Such improvements, to be general, and fixed in a people as a distinguishing feature in their character, must be deeply impressed on several successive generations.

As a class, farmers have few advantages for being well informed in the rapid progress now making in the economical improvement of soils, cultivated plants, and domestic animals. This lack of opportunity is a serious misfortune, and leads to this practical result: With 5,000,000 farm laborers — 2,700,000 in the slave-holding, and 2,300,000 in the free States — American agriculturists so misdirect this immense power of production, that the injury done to 100,000,000 acres of land is nearly equal to all the apparent nett profits on the whole rural industry of the country.

To illustrate an important fact, as well as principle, let us suppose that a farmer produces crops worth $1,000, and that they cost him, including all expenses for labor, wear of implements, interest on capital, &c., $850. Nominally, he has a profit of $150; but it often happens that, if he undertakes to replace in his cultivated fields as much of potash, soda, magnesia, phosphorus, soluble silica, and other elements of crops, as both tillage and cropping had removed, it will cost him $175 or $200 to effect that purpose. It is only by *consuming the natural fertility of the land* that he has realized any profit.

In a national point of view, all labor that impoverishes the soil, is worse than thrown away. No fact in the science of political economy is more important than this. To reduce a field, which in its virgin state produced forty bushels of corn per acre, down to twenty in ten years, and then cultivate it forty years and harvest only twenty bushels per acre in place of forty, is equal to a loss of four hundred bushels of corn per acre in the aggregate, or half the diminished product, without any equivalent whatever. Thus to impoverish land is to wither the muscles of both man and beast employed in its tillage. Human toil is often praised for being highly *productive*, when, had the whole truth been known, it would have been seen to be remarkably *destructive*. Labor never creates a particle of new matter by plowing deep or shallow; but it frequently places the elements of grain, cotton, and provisions, beyond the reach of all scientific farmers who may live hereafter, and find the soil wanting in the raw material for making human food and raiment.

Is it not the duty of government to diffuse among its citizens a knowledge of the true principles of tillage, and impress upon them the obligation which every agriculturist owes to posterity, not to leave the soil he cultivates in a less fruitful condition than he found it?

II. — THE RAVAGES OF INSECTS.

Such insects as Hessian and wheat flies, curculios, weevils, army and boll worms, annually destroy crops to the amount of twenty millions of dollars. If a pirate on the high seas, or an Indian savage on land, injures the property of a citizen to the amount of a few dollars, millions are expended, if need be, to punish the offender. This is right. But when public enemies of a different name do a thousand times more injury to a whole country, are its citizens under any necessary restraint which forbids their making a common effort to protect their property from insect devastators? Parasitic plants, such as rust on wheat and many fungi, as well as injurious insects, are on the increase. To attempt to explain the reasons *why* this is so, would lead at once into questions in animal and vegetable physiology, out of place in this brief synopsis of such rural topics as are believed to be of general interest. It may not be amiss to remark, however, that many boys are, apparently, educated to kill all small birds that subsist mostly on insects, so soon as these youngsters are large enough to shoulder a gun.

Government can do much to check the ravages of insects, by collecting and diffusing useful information as to their habits, times of transformation, and the best means of destroying or avoiding them. If farmers fold their arms and say that nothing can be done by the science of entomology, nor by any other means, what but an increase of the evil is to be

expected? Not to *try* to escape the infliction, is treating one's enemies with unmanly forbearance, and evinces a belief in fatalism worthy a disciple of Mahomed.

III. — ANALYSIS OF SOILS, MARLS, AND FERTILIZERS.

Something should be done in reference to the analysis of soils, fertilizers, marls, and other minerals, constantly sent to the Patent Office for that purpose. For many years chemists and philosophers have been investigating the affinities and other peculiarities of "molecules," or ultimate indivisible particles of matter. These scientific researches have revealed many important truths and natural laws, which have a direct bearing on all the economical purposes of agriculture. Some pains should be taken to impart a knowledge of these laws to all practical farmers. When we consider how little opportunity the mass of agriculturists have to study the chemical composition of their soils and crops, it will readily be seen that information of this kind is greatly needed in all operations which aim to feed cultivated plants with their appropriate aliment.

Professor Henry, the distinguished Secretary of the Smithsonian Institution, has authorized me to say that the extensive chemical apparatus and excellent laboratory of the institution will be at the service of any reputable chemist, to make investigations for the increase and diffusion of knowledge in this branch of science.

I have compiled for this report about one hundred analyses, embracing most of the cereals, several grasses, clovers, legumes, roots, cotton, tobacco, flax, and the ash of fruit and forest trees, from the latest European and American authorities. These analyses will be found valuable for reference.

An elaborate paper on the "Study of Soils," giving the chemical composition of their parent rocks, the amount of the elements of crops in a cubic foot of earth available as food for plants, together with researches into the annual production and consumption of mold, the variation of the temperature and hygrometric properties of soils, has been deferred, to keep this document within a moderate size. For a similar reason, no space has been allowed for mere *guesses* at the quantity of grain and other crops grown in the year 1849.

IV. — THE PRESERVATION OF PROVISIONS.

The science of preserving meat, lard, butter, cheese, and other animal as well as vegetable substances used as food for man, has received very little attention in this country. This neglect causes a loss of many millions every year. To say nothing of the bad taste of eating so much frowy and rancid butter at home, full one-half of all that is sent to England and other foreign countries is sold at half the price of sweet butter, by reason of the defective manner in which it is manufactured and put up for market. American farmers have great advantages for the economical production of beef and pork, mutton and wool; and it will render them a valuable service to obtain from Europe correct information of all discoveries and improvements, either in the growing and feeding of domestic animals or in the curing of provisions.

V. — IMPROVEMENT OF DOMESTIC ANIMALS.

Few are aware how susceptible of improvement is the living machinery which elaborates *milk* for nearly every family in the Union. There is a reliable account in this report, of a dairy of forty-one cows kept in the State of New York, which yields $62 in butter, cheese, and milk, as the product of each cow a year. From the returns of the last State census, it is safe to say that 1,100,000 cows are now milked in that State, which are supposed to yield about $20 per head. To improve these up to an average annual product of $31 each, (that is, to one-half what the best large dairies in the country now yield,) would add $12,100,000 to the income of the citizens of a single State. This gain by the improvement of one kind of rural machinery would be equivalent to creating a capital of $200,000,000, and placing the money where it would yield over six per cent. interest in perpetuity. If the thirty millions of sheep in the United States gave as good returns in wool for the food consumed as the best 100,000 now do, it would add at least 60,000,000 pounds to the annual clip of this important staple.

In one of his letters to Sir JOHN SINCLAIR, Gen. WASHINGTON says, in substance, "that at the time he entered the public service in the war of the Revolution, his flock (about 1,000) clipped five pounds of wool per fleece. Seven years after, when he returned to his estate, his flock had so degenerated that it gave an average of only two and a half pounds per head, which was the common yield of Virginia sheep then, as it is now."

Although the numerous importations of superior sheep, cattle, horses, and swine, have greatly benefited the country, it must be admitted that much has been lost by suffering improved animals to deteriorate. Every wool-grower should ponder well this fact. If two and a half pounds of wool will pay the whole cost of keeping a sheep a year, five pounds will pay one hundred per cent. profit on that cost. WASHINGTON was eminently a "book-farmer," and was anxious to gain knowledge from the educated agriculturists of Europe and his own country. His overseer believed in keeping sheep as his father did, and was opposed to all innovations in husbandry.

There are now not far from 6,000,000 horses and mules in the United States; and it is not too much to say that, in a few generations, these animals may be improved full $30 a head on an average. If so, the gain by this increase of muscular power, and its greater durability, will be $180,000,000. If we study critically the machinery for converting grass, roots, and grain, into beef and pork, the difference is found to be still more striking. If the facts relating to this subject were spread before the people, great improvement would soon follow, and all classes share equally in the profits of more productive labor.

VI. — THE DISTRIBUTION OF SEEDS AND CUTTINGS.

It is a law of nature now fully recognised by men of science, that all cultivated plants and fruits, as well as all animals, are subject to constitutional deterioration, and are susceptible of organic improvement. Hence, one thousand seeds of one variety of wheat, corn, cotton, or tobacco, will produce a larger crop, under equal advantages of climate, soil, and culture, than a like number of seeds of another variety.

Plants propagated by buds, like sugar-cane, potatoes, and fruit trees, are peculiarly liable to constitutional weakness, and are less able to endure rude treatment in violation of the laws of vegetable life. On many plantations, the vital force of the sugar-cane is nearly exhausted; and this office is strongly

urged to procure from countries where the plant is indigenous and grows from the seed a new stock, both of seeds and rattoons, for the use of planters. In cultivating this tropical plant in districts bounding its zone on the north, much care and some science will be found highly useful.

Both seeds and cuttings of the best figs and olives grown on the coast of the Mediterranean should be procured through American consuls resident at the different cities on the borders of that sea. Figs and grapes, "oil and wine," will some day be numbered among the staples of the southern States.

There is reason to believe that the most improved varieties of wheat grown in England and France will be a valuable acquisition to this country; and our wheat-growers would esteem it an especial favor if only a few bushels were procured for general distribution. With the small sum appropriated for the purpose, about eighty thousand packages of seeds have been put up and distributed within the last three months. With a better organization, and greater facilities for collecting seeds and cuttings, vastly more good might be done.

There are now some 200,000 copies of agricultural papers and periodicals printed, which circulate more or less in every State in the Union. These are doing an invaluable service to the country. They cannot, however, enact laws for collecting, annually, reliable statistics of the results of labor and capital employed in agriculture. Truthful statistics form the basis of all reforms—of all progress. State Legislatures must aid in this great work. If "knowledge is power," ignorance is *weakness*; and the removal of this weakness is one of the highest duties of every republican government. Either the assessors or collectors of State and county taxes should be provided with blanks to collect useful information, as well as money, from the people.

VII.—HOW CITIES EXHAUST THE FERTILITY OF LAND.

There has been enough of the elements of bread and meat, wool and cotton, drawn from the surface of the earth, sent to London and buried in the ground or washed into the Thames, to feed and clothe the entire population of the world for a century, under a wise system of agriculture and horticulture. Down to this day, great cities have ever been the worst desolaters of the earth. It is for this that they have been so frequently buried many feet beneath the rubbish of their idols of brick, stone, and mortar, to be exhumed in after ages by some antiquarian Layard. Their inhabitants violated the laws of nature, which govern the health of man and secure the enduring productiveness of the soil. How few comprehend the fact that it is only the elements of bread and meat, evolved during the decomposition of some vegetable or animal substance, that poison the air taken into human lungs, and the water that enters the human system in daily food and drink! These generate pestilence, and bring millions prematurely to their graves.

Why should the precious atoms of potash, which organized the starch in all the flour, meal, and potatoes consumed in the cities of the United States in the year 1850, be lost forever to the world? Can a man create a new atom of potash or of phosphorus when the supply fails in the soil, as fail it must under our present system of farm economy? Many a broad desert in Eastern Asia once gladdened the husbandman with golden harvests. While America is the only country on the globe where every human being has enough to eat, and millions are coming here for bread, how long shall we continue to impoverish ninety-nine acres in a hundred of all that we cultivate? Both pestilence and famine are the offspring of ignorance. Rural science is not a mere plaything for the amusement of grown-up children. It is a new revelation of the wisdom and goodness of Providence, a humanizing power which is destined to elevate man an immeasurable distance above his present condition. To achieve this result, the light of science must not be confined to colleges; it must enter and illuminate the dwelling of every farmer and mechanic. The knowledge of the few, no matter how profound, nor how brilliant, can never compensate for the loss sustained by neglecting to develop the intellects of the many.

No government should be wanting in sympathy with the people, whether the object be the prevention of disease, the improvement of land, or the education of the masses. One per cent. of the money now annually lost by reason of popular ignorance would suffice to remove that ignorance.

I have the honor to be, with great respect, your obedient servant, DANIEL LEE.

HON. THOMAS EWBANK,
Commissioner of Patents.

HINTS FOR JULY.

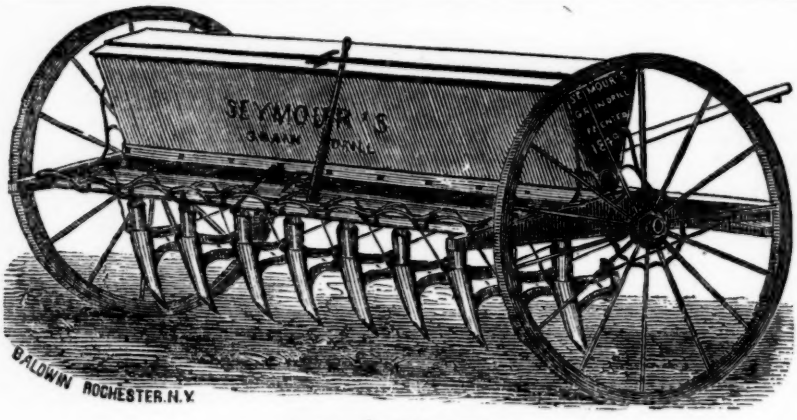
THE principal work for this month is Haying and Harvesting. It was always our delight, even in our most juvenile days, to visit the hay-field. And now, we never feel so much in love with the farmer's life as when we swing the scythe among the tall grass or rake the new mown hay. The farmer should see that his corn is hoed, garden weeded, cabbage set, and other small matters attended to, so that nothing may be in the way of haying and harvest, and then he can put all his force at the work. Now is the time to see that scythes, forks, rubbers, hay rigging, &c., are on hand and in order.

Cut your June and wild grasses early, even before clover, if you desire to have it worth anything. Clover hay must also be cut early, or when the last sets are in blossom, and the first ones a little turned; and observe one well established principle, that if that cut in the forenoon is not cured sufficiently to take in the same day, that as soon as it is fairly wilted it should be put up in cocks of 75 or 100 lbs., and left from three to four days; and on a fine sunny morning open it, and by ten o'clock it is ready to load. By this process the leaves and blossoms are preserved in a fine fragrant state—the real old hyson—and not the black, tasteless, bean-stalks and hop-vines of the old process. If you have any fears that the hay is too green when taken in, pack it away loosely and let it settle by its own weight, and finely and evenly sprinkle on four quarts of salt, and not more, while unloading.

Stacking out hay is a bad business, unless it is thatched, or made up by an artist—it should be in the barn, or under barracks. An open, rainy fall and winter destroys at least one quarter, and if it stands over one year, the mice destroy the balance.

Buckwheat should be sown early in July, about three pecks to the acre.

Sow round turneps and cut Canada thistles the last week in this month.



SEYMOUR'S GRAIN DRILL.

SEYMOUR'S GRAIN DRILL.

In the engraving above, we present another Drill claiming public favor. It is manufactured by the inventor, P. SEYMOUR, Esq., of East Bloomfield, Ontario county, N. Y. It is not our business to praise one drill to the disparagement of others. We place before our readers the various drills and other farm implements that we have reason to believe are valuable, thereby giving all an opportunity, as far as possible, of reading and judging for themselves. Our correspondents have always freely given the results of their experience, and will continue to do so, and thus our readers have the benefit of the opinions of disinterested and practical men — experience not gained in the *machine shop*, but in the *field*, under various circumstances, on rough and smooth, hilly and level, stony and clear land.

It is generally conceded among the best farmers, we believe, that by drilling wheat and other crops, two desirable objects are gained — a saving of seed, and a better crop; and the necessities of farmers demand, and the genius of our mechanics will supply, implements well adapted to the work.

The first premium for a Grain Drill capable of depositing fine manures with the grain was awarded to Seymour's Drill, at the last State Fair at Syracuse and at the last Michigan State Fair. Our esteemed correspondent CALVIN SPERRY, has given his opinion of this Drill in the February number.

The person attending Seymour's Drill can readily see whether any of the teeth fail to deliver the grain regularly, as they are in plain sight. It sows wheat, oats, barley, corn, beans, peas, &c., and is also capable of sowing fine manures with grain, such as plaster, lime, and ashes. It can be changed, in a few minutes, from a drill to a broad-cast sower — an additional advantage. For further information we refer to our advertising pages.

THE spirit of the Agricultural Press is abroad in the land. Wherever the cheap little monthly finds its way, it engenders thought and high expectations — and the mechanic's hammer falls to the tune of awakened ideas, and the plowman no longer "whistles from the want of thought," but he sings, "There's a good time coming, boys."—*Dr. Kennicott.*

QUINCES ON THORN, &c.

MESSRS. EDITORS :—It may be of benefit to some of your readers, upon new farms, to know that they can raise good quinces upon the stock of the common thorn, in three years. My plan is, to take up a good thrifty thorn, from the field or some open spot, about an inch or so in diameter; set it out where I want it to stand, and graft quince into as many limbs as convenient; and they do well, growing about as much the first season as though the bush had not been removed.

I also succeed much better in raising cabbages by planting the seeds in the hills where they are to remain, scattering a good pinch of seeds in each hill, where I let them stand until large enough to transplant, when at various times I thin out and give plants to my neighbors, say from two to ten plants from each hill, until there are but two of the very best plants remaining in each, which I let stand until they are large enough to be out of the way of cut worms, &c., when the smallest remaining one is removed from each hill. The time for planting corn is about the right time for planting cabbage in this way. J. H. ANDRUS.—*Almont, Mich.*, 1850.

SIMPLE FASTENING FOR AN OX-CART. — *Messrs. Editors:* — I would like to describe a very simple fastening for an ox-cart, but none the less useful for being simple. We here give it the name of sward, although I consider it much more useful, as well as less dangerous, than most articles of that name. It consists merely of a bit of good timber one and a half by two inches, four feet in length, put through the tongue of the cart, and made fast by a small bolt passing through a mortice in the front sill, out side of the end board. If the sill is not of sufficient width to admit of a mortice, a staple driven in it will answer the same purpose. One of the greatest advantages to be derived from this fastening, consists in having several holes in the sward, so that the cart may be fastened in any position desired. I think that any one accustomed to drawing manure in a cart, will see the advantage of having it so fastened that it will not fall upon the tongue when it is not half unloaded to the great annoyance of the team. WILLET KERR. — *Peru, N. Y.*, 1850.

Wheat Husbandry.

ANOTHER WORD ON THE CAUSE AND CURE OF SMUT IN WHEAT.

MESSRS. EDITORS :—I am an old Farmer, have been in the business of cultivating wheat for more than thirty years, and I have heretofore raised a large quantity of smut. At times my wheat crop would be one-third smut. I have tried all the preventives that I have seen recommended in the Farmer, without an entire cure ; but for the last ten years I have raised no smut. I will now state my former practice when I did raise smut, and my present practice, and hope other farmers will try the experiment, and I think they will give up the practice of steeping their seed wheat in any solution whatever ; neither will they need a sieve to separate the large seed from the small ; if it is ripe and sound it will not bring smut.

I will now say that I formerly harvested my wheat very green, or in other words, before it was fully ripe, and made use of the same for seed, and from that seed I always raised plenty of smut. At length my *bump* of causality whispered to me, "You cut your seed wheat too green," and from that time I have selected the part of my wheat-field that ripens the evenest, and let it stand in the field until it is dead ripe and until the heads appear weather-beaten, and I have raised no smut since I followed the above rule.

Some seasons my wheat does not ripen even, and if I find a green head when I am cutting my seed wheat, I throw it out ; for I am fully of the opinion that a small, unripe grain of wheat, if it vegetates at all, will bring smut. Such a grain contains but a very small particle of vitality, and a strong solution of salt, vitriol, or lime will sometimes destroy that vitality, so that the grain does not vegetate ; and here is where farmers are mistaken—they suppose they destroy the smut, when in fact it is the unripe, sickly grain which produces smut, that they destroy.

I say again to my brother farmers, try it, and my word for it you will not be sorry. JACOB LOOP.—*Pontiac, Oak. Co., Mich., May*, 1850.

SMUT.

SEVERAL articles have appeared in the Genesee Farmer, taking opposite views as to the origin of smut. Without any endeavor to invalidate the theory of J. H. H., it may be well and profitable to examine the subject yet farther ; and for that purpose the following facts and ideas are collected for the consideration of farmers and others affiicted with smut.

There are various groups of plants too minute for notice by casual observers, possessing a degree of vitality, under the most unfavorable conditions, and for a period, which claims our surprise. Of this class are mosses, which may be dried and laid by for years, and then if exposed to moisture, will, even in the late winter months, spread out their leaves and push up the seed vessels amid frost, and rain, and snow. They are sometimes so completely dried by drouth as to escape notice ; and when in time they are moistened by rain, they appear to clothe suddenly a spot where they were never seen before. Another group of plants, more simple than the mosses, is seen in our far northern latitudes, but are noticed here to convince my brother farmers of the necessity for deeper study of our profession before we *adopt* any theory which has not the sanction of time and scientific inquiry. I allude to a greenish or reddish slime often seen on damp parts of hard surfaces, which, when examined with a microscope, is found to consist of minute cells, hardly connected, but imbedded in a sort of jelly. It is this substance which sometimes appears on the *surface of snow*, tinging extensive tracts with a deep crimson, and hence called *red snow*. This sometimes appears *so suddenly* and extensively as to induce the belief that it had fallen from the clouds ; but its *growth* and productiveness are so rapid as easily to account for its appearance. This plant exhibits probably the very simplest form of vegetation ; it obtains its nourishment by absorbing the fluid around, and grows and comes to maturity by means of the air and moisture with which it is in contact.

Now, this red snow seems but one step lower than the *Fungi*—a tribe of plants which includes mushrooms, toad-stools, puff-balls, blight, mildew, mould, and *smut*. These fungi differ, however, in their habits and characteristics, and have been heretofore too little heeded or observed by farmers. One characteristic is, that they will not grow unless fed with decaying animal or vegetable matter. And again, there are particular species which will appear only on particular substances—for instance, there is a species of mould, or fungus, which grows *only* on the surface of the dung of cats ; it is peculiar, and no where else to be found. Many others might be named, but it is only necessary to say that tribes of plants have *their peculiar* species of *mould*, or *rust*, or *smut*.

The oft repeated appearance of the most simple fungi, such as mould and smut, upon all *spots favorable to their development*, has created the belief that they were spontaneously produced ; but it is more reasonable to account for their production and diffusion by the means which nature has provided and adopted.

The fungi seem to direct all their energies to reproduction ; their size is diminutive, but the number of germs are almost beyond computation. This is strikingly the case in the puff ball when ripe ; the dust which issues consists entirely of germs for reproduction, each and all ready to develop a new fungus when meeting with a fit resting place. When the puff-ball is broken, countless numbers of these little seeds or germs are driven by the breeze or float in the air. By an attempt to count the number of germs in a ball, ten millions were computed ; but this was probably only an approximation.

Not less minute are the seeds of *smut* when examined by a powerful magnifier—the germs are distinguishable as easily as those of the puff-ball. Let farmers examine smut for themselves, and if they find the facts as above stated, is it not rational, nay *most* rational, to believe that the seed thus profusely produced is readily communicated from one plant to another by adhesion of these minute seeds to the grain when it is threshed, also entering into the growing plants by their many pores, and surely it must be brought in connexion with the seed when sown, by the water of the soil trickling through it and carrying with it the countless millions of fungi seed which may have fallen from previous infected crops.

It may be objected, that the grain we sow can not take up solid matter, such as seeds ; but when we examine water which to the eye is clear, we find it

often full of matter and living things, and who shall say that growing wheat can not absorb through its pores, or vessels, matter so minute that the unaided human eye can not detect it. Here, then, we have various ways to account for the rapid and extensive spread of smut as a fungus; and as one more illustration of its minute character, and power of finding its way into invisible pores or channels, the following fact is given:—Wasps have *often* been seen in warm climates, flying about with plants projecting from some part of the surface of their bodies. Upon examination, these plants are fungi, which, which while floating in the air, have come in contact with the wasps, have entered the pores at their sides, and feeding on their moisture, develop a luxuriant vegetation. In time, this fungous growth spreads through the body, and destroys the life of the insect. Other and more curious instances might be presented; but if my brother farmers feel any interest in searching out the causes of mischief which assail them, and as among the number, SMUT, let me recommend the perusal of Carpenter's Physiology of Vegetables, and also Roget's Animal and Vegetable Physiology.
OLD FARMER.—*Seneca County.*

CHESS.

MESSRS. EDITORS:—I am aware that the press, if not the public, have become tired of the chess controversy; still, I feel as if, under existing circumstances, I had a claim for this once to be heard. Nine years since, when the subject of the transmutation of wheat to chess was under discussion in the Genesee Farmer, Mr. C., then editor, (now deceased,) called for facts—"Give us facts," he said; "we want facts." I then prepared the following statement, and handed it to him: but the facts were not such as suited his theory, and they were not permitted to be published. However true the theory may be, that "like produces like,"—and I assent to it fully—still, to the common mind, one fact is worth a thousand theories.

On a farm formerly belonging to the writer of this article, a wood lot of several acres was hastily cleared up by contract. It was heavily timbered, having many hemlocks of prodigious size. It was rolling land, with knolls and hollows; and where trees had been overturned by the wind, there were basins, in which the water stood much of the time, except in the dry portion of the year. A neighbor obtained permission to sow one acre in the corner of the field, in order to raise a particular kind of seed wheat. The seed sown was obtained on an adjoining farm, by a daughter, who picked up single heads and rubbed them out by hand in the evening, until she had obtained a bushel. Of course it was absolutely pure and clean. At harvest time, the wheat on the high and dry portions of the ground was pure and excellent. In the hollows and basins, where the water accumulated and stood much of the year, little or no wheat appeared, but pure and abundant chess. Now, it is useless to say that chess was sown; for not a kernel was sown;—or that chess had lain dormant in the ground for years; for it had never before been tilled since the world was made;—or that birds of the air had dropped the seed; for if so, why did they deposit it in the wet places, and not on the dry ground? The inference is irresistable, that chess is *deteriorated wheat*—that it can produce its like, but can not regain the character from which it has fallen. It has not lost its vitality, or power of re-production; but it has lost some distinctive characteristic of the pure wheat, some portion of the vital principle that is necessary to re-produce the perfect grain.

But I have another fact. My men, in passing through a barley stubble with the plow a few times, carelessly turned a few furrows in spots, for a short distance. Presently some rank and luxurious tufts or bunches of barley sprung up. On examination, I found that clusters of barley heads had been collected together under the furrow, probably by the mice or small squirrel. The seed had vegetated, the small roots were abundant, the barley heads were perfect, and the green tufts sprung up from the heads. They were protected and watched by me, solely with the view of ascertaining whether barley sown in the fall would live through the winter, and thus become a winter grain. It did live, and flourished equal to wheat; but at harvest time it was all chess!

These are facts, which I submit to the advocate of first principles and fundamental laws, to be reconciled as best they may be. To the practical farmer they are satisfactory proof that wheat can degenerate into chess. The influence of this opinion, in its practical results, will be to induce farmers to sow pure wheat on dry and good ground, in the expectation of pure wheat in return, if the season and soil are favorable; and to avoid sowing chess, in the certainty, if they do sow it, of receiving chess in return, be the soil or the season what they may. Yours, &c., E.

Our readers need not fear that we are about to give them a new edition of the *Chess* question. The above article was written by an old Onondaga county farmer, now too far advanced in years to hold the plow, but who feels a lively interest in all that pertains to the improvement of the agriculture of the country. Its publication will gratify our aged friend, and we doubt not, interest our readers.—EDS.

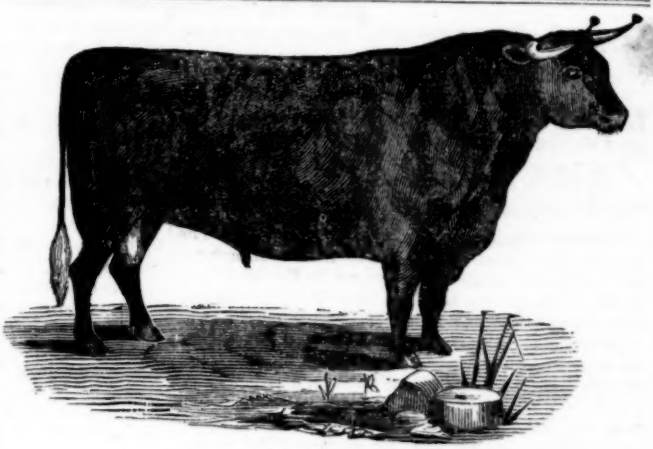
ELDER.—GAPES.

EDS. FARMER:—I would respectfully request either of you, or some of your correspondents, to advise me of the most speedy and effectual way to extirpate the common dwarf elder. I have tried frequent cutting and grubbing, (though perhaps not frequent enough,) with only partial success. I would also be very glad and thankful to receive, through the medium of the Farmer, information how to prevent the *gapes* in chickens, with which above one-half of mine die.—ISAAC CHILD.—*Indian Spring, Pa., June*, 1850.

The destruction of elder we prefer, for the present at least, to leave with our correspondents; and we hope some of them will give us the benefit of their experience in season for our next issue.

In searching for a preventive of any disease, the first and most important point is, to ascertain the *cause*. This accomplished, the preventive naturally and easily follows. The *gapes* in chickens is caused by a want of attention to cleanliness and comfort—wet or ill-ventilated fowl-houses, ill feeding, bad water, or confinement to a small spot of ground without access to gravel and fresh earth. The preventive would be, of course, the reverse of this treatment. It should be remembered that this disease is epidemic, and as soon as one is affected, it should be separated from the flock. In its first stages it may be cured by a little fresh butter and Cayenne pepper, which the subject should be compelled to swallow. If the disease is far advanced, a good plan is to force a feather saturated with turpentine, down its throat, turning it round while there. This repeated once or twice, if necessary, will generally effect a cure.

DEVON CATTLE.



DEVON BULL "HOLKHAM."

The annexed engraving is a portrait of the Devon Bull *Holkham*, bred by A. Bronson, Esq., of Oneida county, N. Y., and now owned by L. Crane, of Marshall, N. Y. He is a descendant of the *Coke Devon Bull Holkham*, from his resemblance to which he takes his name. He received the first premium of the Oneida County Agricultural Society when a calf, also at one year old, and at two and three years old. The owner gives the following description: "Head small; eye large, clear, prominent, and encircled with the yellow ring; muzzle fine; nostrils wide, high, open, and encircled with white; horns polished, pointing forward and upward, and of a medium size at the base, and tapering, tipped with black; ears small, of an orange color within, and bordered with grey hairs. Neck fine and well placed on the shoulders; chest broad, barrel hooped and deep, and well ribbed home to the hips; back straight from the withers to the setting on of the tail; tail long, slender, and set high, with the white bush; hide thin and moveable, mellow, well covered with soft and fine hair; fore-arm large and powerful; legs short and straight, swelling and full above the knee and fine below it; hind quarters long and well filled up."

It is generally admitted that this breed of cattle is very easily kept and easy to fatten. Martin, in his (English) work on the *Ox*, speaking of this point, says: "During the summer the commons and wild moorlands supply a sufficiency of food; and when in their winter sheds, chopped straw, furze, heath, and other coarse herbage, are sufficient. Hence these cattle are maintained at very little cost, and as they yield a fair quantity of milk, and when put upon moderately good fare, rapidly fatten, they will suit the small farmer, perhaps half-farmer half-fisherman, in a bleak mountain-district, over which the ocean tempest is driven so frequently."

Allen, in his *Domestic Animals*, bears evidence of the same fact: "No animal is better suited to our scanty or luxuriant hill pastures than the Devon, and none make a better return for the attention and food received. They ensure a rapid improvement when mixed with other cattle, imparting their color and characteristics in an eminent degree."

The cows invariably yield milk of great richness, and when appropriately bred, none surpass them for the quantity of butter and cheese it yields. Mr. Bloomfield, the manager of the late Lord Leicester's estate at Holkham, has, by careful attention, somewhat increased the size without impairing the beauty of their form, and so successful has he been in developing their milking properties, that his average product of butter from each cow is four pounds per week for the whole year. He has challenged England to milk an equal number of cows of any breed, against forty pure Devons, to be selected out of his own herd, without as yet having found a competitor. Although this is not a test of their merits, and by no means decides their superiority, yet it shows the great confidence reposed in them by their owner. The Devon ox, under six years old, has come up to a nett dead weight of 1,593 lbs.; and at three years and seven months, to 1,316 lbs., with 160 lbs. of rough tallow.

S. W.'S NOTES FOR THE MONTH.

The Season and the Crops. — Up to the 2d of June we have not had a single warm day. On the 3d of June, for the first time this year, the thermometer rose to 85° in the shade. From that day to this (the 10th,) we have had fine, growing, summer weather, with a few very warm nights. Our champaign country is now in the full bloom of rapidly progressive vegetation. Wheat and grass look well; potatoes, which cover a large space this season, ditto; Indian corn, so long stationary or unseen, now goes ahead with recuperated powers, as though its roots had increased and extended while its leaf was sickly and yellow. In the higher and more hilly regions of New York, vegetation just now is much more homely and backward. But every dog will have his day; in July and August, when we are sun struck, dried up, our pastures hardly sufficient to afford a nibble to a flock of sheep, the higher dairy lands will be in all their glory — white clover half-leg high, springs of cold soft water from the granite hills coursing fields which are the Paradise of cows. Then the butter, so hard, compact, and yellow—what a clover perfume and flavor! — how unlike our soft, greasy compound — call it anything but butter — the product of churnings of long and warm kept, decomposed, many colored creams! Then the big cheeses — often two made in one day — too heavy for one woman to turn; but here the men turn too and help; and every girl seems to be intuitively aware that to be a graceful, expert milker, is at least to be something better than a *mal adroit*, slovenly pretender, in folly and fashion's school!

Wordsworth, the poet of Rydal, is dead. The factitious title of Poet Laureat ill-befitted either his life or character; for he was emphatically a rural poet. Eschewing both the classical heroic and Della Cruscan school of poetry, he gave himself up to the gentle yet profound influences of his own lake and mountain scenery. It is said of him, that the love of nature "was an appetite" which "haunted him like

a passion." Perhaps it might better have been said, that the love of nature was

——"born in him, with him so intense,
It was his very spirit, not a sense."

Let every farmer who would make the most of the good that surrounds him—

"Find tongues in trees, books in the running brooks,
Sermons in stones, and good in every thing"—

buy WORDSWORTH'S poems.

PRICES OF OUR AGRICULTURAL PRODUCTS. — The late rise in the price of corn and flour is stimulated by the recent demand for shipment to England; but as the late rise in England is owing to a present short supply from the Baltic and the Black sea, and to the fear of the effect of present bad weather on growing crops; a subsequent decline, on the return of fair weather and increased imports, may be anticipated. There are, however, other causes which must keep up prices in the United States until after the next harvest. The wheat crop of great wheat-growing Ohio was a failure last year, while the home demand, increased by immigration, has been unprecedented. Strange to say, the great valley of the Mississippi is now importing bread-stuffs from the lakes, through the Chicago canal and the circuitous Illinois River. The St. Louis Repub. says that they are now receiving by that route, flour, wheat, corn, oats, barley, and potatoes. This does not look as though the farmers of the great west were suffering very much just now for the want of a home market. The farmers of our country are under great obligations to Sir ROBERT PEEL, under whose ministry the British government was induced to make such a concession to free trade as to admit American provisions, butter, cheese, lard, &c., into Great Britain under very low duties. The subsequent abrogation of the sliding scale of corn law duties, which taxed foreign corn out of the market, unless its home cost approached famine prices, has created a powerful opposition to free trade in corn, by the so called "landed interest" of Great Britain. 'Tis hard for the aristocratic landlord to retrench in his great and multiform expenses and luxurious style of living: and although the farmer tenant may consent to give up his bottle of port with his dinner, he can not yet dispense with his horse and gig. Hence there is left to him no other way of paying his rent under the present prices, but to pinch his farm laborers in their wages to a stipend that has already driven them to the brink of starvation! Some benevolent writers in England and Scotland have endeavored to show the landlord how much it is to his interest to give the farmer more liberal covenants, and to teach the farmer how he may live and feed his working force under such covenants, with the adoption of better economy and a *higher* and better mode of farming. Against Mr. CAIRD, one of these writers, Blackwood, (now the landlord's exponent,) in the April number of that magazine, comes out with an elaborately furious article, entitled "Caird's high farming harrowed." I have not seen Mr. CAIRD's pamphlet, but if we may judge from the floundering of the great Philistine, little David must have struck at his life. By a curious coincidence in the theory of political economy, we on this side the Atlantic, and Blackwood on the other, arrive at the same conclusion;—while we urge that our well paid operatives can not compete with the half paid laborers of England, Blackwood says that the "British farmer who pays taxes, can not compete with the foreign *serf* who pays no taxes at all." In both cases we have left to us the lamentable conclusion, that the argument aims an unerring shaft at God's poor, in whatever hemisphere their lot may be cast, just as though they had no right in the good things of this world of ours!

THE PROGRESS OF RURAL TASTE. — A sterling farmer, who can both say and do, writes in the Seneca Observer, that on a visit to his neighbor, last week, he was "surprised to see the ground spaded up in front of the house, and laid out in regular beds for flowers and shrubs." This space, he says, "had ever before been covered with plantains, sorrel, and other unsightly weeds." But what a wet blanket the "old farmer" throws on our imagination, now about to invest the fair inmates of that house with a true love and enthusiasm for flowers, when he tells us that the paltry dollars, the premium offered by our county society for the best boquet, gave the primary impulse to this ever to be praised reform. But, as the Methodists say, a good tune is none the worse for having originated with the devil. One word more in relation to our Seneca county premium for flowers. I have been asked by more than one of the single fair, whose ages are on the shady side of five and twenty, why the prizes are thus invidiously offered only to those girls who have the good fortune to be on the sunny side of that now climacteric number. Did the committee think that she who could pass her 25th birth-day without appropriating a husband, would be alike insensible to the beauties of that floral creation which heirs not the grossness of flesh and blood? If they do, I confess that all my experience leads to the very opposite conclusion.

A REMEDY FOR IGNORANCE.

MESSRS. EDITORS: — I am sorry to hear your correspondent "W. T." condemn your most valuable paper because it is too scientific, or because you use terms which he can not understand; and I hope you will not restrain your scientific analyses because a very few of your readers do not understand the phrases which you necessarily use; and I dare assert that those who can justly claim the proud title of a farmer, will, if they meet with a term which they can not comprehend, study out the meaning, instead of sitting down and bewailing their ignorance.

"W. T." seems to think that there are a great number of your readers who do not understand "the phrases you use in analysing soils;" and if such be the fact, it is a disease, for which I wish to propose a remedy. It is not a year since I commenced reading your paper, and at that time I was in the same dilemma which my friend seems to be in; but I was ashamed either to present my ignorance before the public as some have done, or to keep it secret, and was incited to the study of chemistry, which I set myself about with all dilligence. Now, I would say to my brother reader, and to all who do not understand their profession, "go and do likewise."

Again: "W. T." asks, "What will our grandchildren think, when looking into a volume of the Genesee Farmer they see an advertisement with bolus and bottles?" I would say, in answer, that if they should see *his* article, while perusing the Farmer, they would laugh at his folly, and rejoice in their superiority over their ancestor. B. L. N.—*Madison Co., N. Y.*

BEES.—No. 1.

As the articles that I now purpose writing will be a brief exposition of the principal characteristics and proper management of the Honey Bee, and which will probably be read by many who have never seen a treatise on the subject, it will be necessary, as a preliminary elucidation, to state what most prominently pertains to the three classes of bees comprising every family, in regard to their physiology and domestic economy; yet from necessity, I must be very brief in a publication of this kind.

A family of bees consists of a *queen*, *workers*, and *drones*. The queen is the mother of all the increase of every hive. She alone produces the eggs from which some 30,000 bees emerge every season! This amazing fecundity may truly excite our surprise, yet analogy shows many parallels in the insect tribes. In strong, populous families, she seldom ceases laying during the entire year. If a hive well filled with bees be examined in the dead of winter, brood will be found to some extent. She commences her spring laying in March or April, according to the mildness of the season, and during the month of May produces 200 eggs per day! Her office is solely to deposit the eggs in the cells, which she does at the extreme end of each, where a triangular cavity receives them. At each deposit, a whitish fluid accompanies the egg to cause it to adhere to its locality. Thus the queen passes quickly from cell to cell, in the execution of her task, independent of any attention being paid to her by the workers, on account of her royalty, save a respectful opening of a free passage as she advances. These facts have been verified by the use of *observatory* hives, with glass sides, and only a single leaf of comb.

The workers are the laborers of the association. They build the combs, gather the pollen [bee-bread] and the honey, and all labor pertaining to the family devolves upon them. They learn nothing from *experience*—nothing from age; but come forth from their cells perfect in all their arts. What took ages for mathematicians to compass, by a waste of "midnight oil," the little bee was master of as she sang her song of merry contentment, while quaffing the mellifluous nectar from the spontaneous profusion of the garden of Eden. The wonders of her architecture I must reserve for a separate article. It has been said that there is an especial class among the workers, for each separate duty, which class can perform no other labor, save that which nature has assigned to them. This is not the case. The workers can lend a hand at any work. The honey-gatherer of to-day may be collecting pollen to-morrow, and the next day fabricating combs, feeding the young brood, or acting as sentinels at the entrance of the hive; but their change of duties is systematic, and governed by instinctive laws among them. This is the only law that governs an association of bees, and it is a law that needs no "amendments." Their constitution is implanted in the censorium—the acme of perfection, so far as regards the operations of this insect; and while man errs in his architecture, even though master of his profession, the bee never does.

The *sex* of workers is a matter of interest. They are neither males nor females, a singularity in nature belonging to this class of insects only. They have the rudiments of ovaries, but not fully developed; yet in certain peculiar cases, fertile workers do exist, as is supposed by many apiarians; yet this fact has never been set at rest. HUBER, the German naturalist and apiarian, is the founder of this theory; yet he was blind, and trusted entirely to an assistant for his discoveries. I shall speak at length on these alleged fertile workers, probably; but let it be understood that the queen is the grand source of increase, and if rare instances of workers have been found in which some very few have been known to deposit eggs, the increase from this source is so very small that we look upon it rather as a phenomenon of nature, than as a legitimate source of fecundity.

The *drones* are a class that exist but a few weeks in the family. These are the males, and there is much mystery hanging over the duties pertaining to this class of bees. Some people consider them entirely useless—even a serious disadvantage to the association, and hives have been invented with an eye to exclude them from their tenements, while the workers can, from their diminutive size, easily enter. And when I think of the folly of such persons, who believe in ridding their hives of this class before the season allotted by nature—the God of nature, who knows as much as they do, and perhaps a little more—I feel that it is "casting pearls before swine," to endeavor to eradicate their ignorance. I shall devote my next to this highly important and interesting part of my subject.

T. B. MINER,
Author of the American Bee-Keeper's Manual.

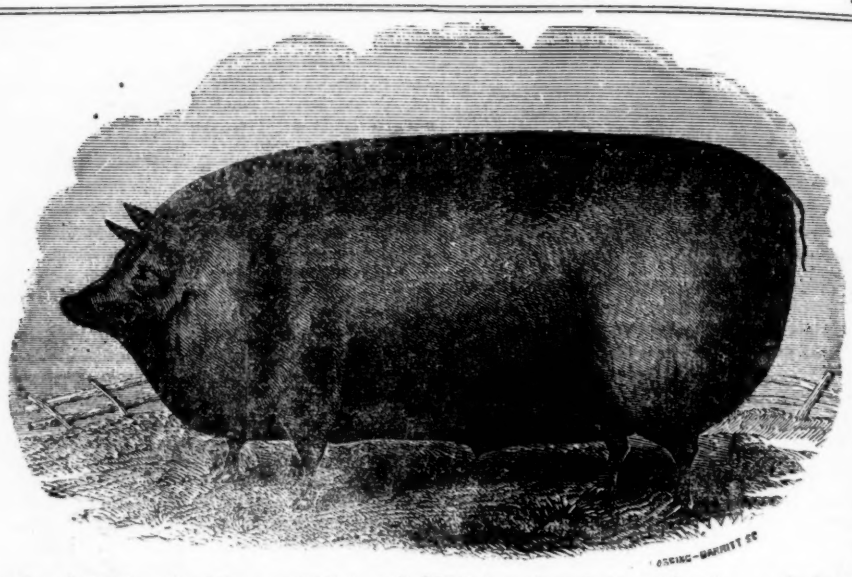
Clinton, Oneida Co., N. Y., 1850.

SWINE.

THE first swine of which we can find any reliable account, as having made much improvement in the stock of the United States, was a pair of pigs sent by the Duke of Bedford to Gen. WASHINGTON, by a Mr. PARKINSON, an English farmer, who came to this country in 179–. He leased a farm in the vicinity of Baltimore, Maryland, where he resided some time. Instead of delivering these pigs to WASHINGTON, he dishonestly sold them. They were generally called the "Woburn," or "Bedford" breed," but in some districts in this country, they were known by the name of the "Parkinson hog." They originated at Woburn, the estate of the Duke of Bedford, and were produced by a cross of the Chinese boar on the large English hog. In their perfection they were a splendid breed; being fine in their points, of deep, round carcass, short legs, and thin hair. They kept easily, and matured early. At 12 to 30 months old, they usually weighed from 300 to 600 lbs. They had light offal, and their meat was of the first quality. Their color was white, broken more or less with dark blue or ash-colored spots. The steward of the Duke of Bedford informed us, in 1841, that the true breed in England had become extinct several years before; and we believe its purity is no longer known in the United States.

The "Byfield," sometimes known as the "Grass breed," derives its first name from the circumstance of a farmer in the town of Byfield, Mass., about 30 years ago, accidentally picking up a pretty pig one day in the market, and taking it home and breeding from it. The progeny proved to be fine and quiet little animals; but in consequence of their rarely attaining over 250 to 300 lbs. weight, full grown, and being rather shy breeders, they were soon given up as too small and unprofitable for the general purposes of the farmer. Their color was pure white.

Capt. JOHN MACKAY of Boston, Mass., produced a



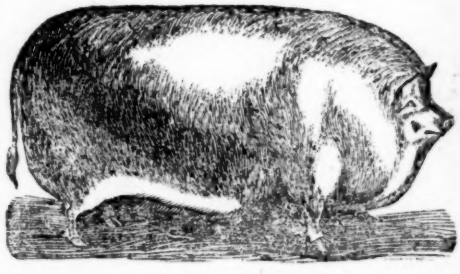
superior breed of swine, about the year 1825, by judiciously crossing various excellent animals, which he had the good taste and enterprise to select and bring home in his voyages from various quarters of the globe. It is said that the pigs from which he derived the greatest benefit in establishing his breed, came from China. This breed was given the name of "Mackay," in honor of its originator.

The Spanish black hogs, from the Mediterranean, brought over by Commodore CHAUNCEY and other naval officers, have been sources of considerable improvement along the Atlantic coast. Then we have had the Norfolk Thin-rind, the Leicestershire, the Lincolnshire, the Hampshire, the Yorkshire, the English and Irish Grazier, the French, the Swiss, the German, the Neapolitan, the Russian, the Calcutta, and time would fail to tell how many more breeds, if we undertook to enumerate them all.

The breed of pigs which has been more widely spread, and exercised a greater influence in giving shape and character to the swine of the United States than any other, is the Berkshire. The first was imported from England, in 1823, by the late Mr. JOHN BRENTNALL. He was an English farmer, and settled in Canterbury, Orange county, N. Y. The next importation of Berkshires was in the autumn of 1832, by Mr. SIDAY HAWES, who resided on the Three-Hills Farm (since owned by Mr. BEMENT,) in Albany, N. Y. In 1833 and '35, he made other importations; and after his return to England, in 1838, he sent out others in 1839. Subsequent to this, Messrs. BAGG & WAIT of Montgomery, Orange county, N. Y., made large importations of Berkshires, both here and into the south and west. In 1841, we imported upward of forty head of this superior breed.

The Berkshires are so well known, that we need not describe them. Notwithstanding the disappointment and prejudices of some, we say emphatically, that taking them all in all, we still think those which are well bred, the best farmer's hog ever imported into, or reared in, this country. They are a particularly valuable breed for the west, as they have proved themselves better travellers than any others, when driven over the mountains to a distant market. This is an important consideration; and when Berkshires can no longer be found, they will be more highly thought of than ever, and the farmers will seek, when it is too late, to get into the breed again.

In 1841, Mr. WILLIAM STICKNEY of Boston, imported a pair of Suffolk pigs, which he has followed up by other importations, nearly every year since. His hogs are of medium size, of a white color, very fine in all their points, with deep full chests, round bodies, thick hams, and short legs. They are docile, thrifty, mature early, and are easily kept. Their pork is considered very delicate and fine. They will weigh from 200 to 450 lbs. at 12 to 18 months old. This breed of swine, some few of which occasionally come up as high as 500 pounds, is beginning to be pretty well known; and as they are of a favorite color, we think they are destined to be widely disseminated.



We now present our readers with the portraits of two pigs, which we think very perfect of their kind. The large one is a good representation of a choice hog for a farmer, weighing from 400 to 500 pounds. it is an excellent model to go by, and every farmer ought to have it before him as a guide in breeding. The best Suffolks, well fatted, nearly resemble this; so also do the Berkshires, except that they are inclined to be somewhat steeper in the rump. The small one is exactly like the improved Chinese, and would not be a bad portrait for a small, well fatted Suffolk or Berkshire.—*Am. Agriculturist.*

Horticultural Department.

EDITED BY P. BARRY.

TWO FINE FLOWERING SHRUBS.

Among the multitude of flowering shrubs that embellish so highly the months of May and June, the genus *spiræa* is worthy of a prominent place. Already our collections number some ten or twelve species that bloom at this season, and all so hardy and so easy of culture as to succeed every where, and under any sort of management. The new double flowering Japan species introduced a few years ago, and which we noticed in our volume for 1849, has proved a decided acquisition. It is hardy, forms a small compact shrub, and is increased and cultivated with the greatest ease. Its pretty, double, white flowers, resemble those of the double thorn and sloe.

We have now to notice two other species, combining so many good qualities, beauty, hardiness, &c., &c., that we can cheerfully recommend them to all who are making collections of select hardy shrubs.

Lance-leaved or Garland Spiræa. *Spiræa lanceolata.*—A shrub attaining four or five feet in height, with slender, spreading branches, and long spear-shaped leaves slightly lobed, and dentated, or toothed. The flowers are produced in clusters, or corymbs, forty or fifty in number, each nearly as large as a wood strawberry blossom, the whole cluster measuring two to three inches in diameter, according to the vigor of the plant. These corymbs are slightly globular, and are produced on lateral shoots four or five inches long, on the whole length of the branches, and so closely that every branch is a garland of snowy whiteness, showing with great effect on a lawn or border. It is propagated from layers or cuttings of the young wood; and plants not over three inches in height blossom. This season it commenced to bloom about the first of this month, and is now (18th June) in full perfection, with the appearance of lasting two or three weeks longer. The annexed figure, though imperfect, conveys some idea of a single cluster of the blossoms; but it does the plant injustice to show less than a whole branch.

Elm-leaved Spiræa. *Spiræa ulmifolia.*—This attains a larger size than the other, say eight or ten feet; said to be from Carniola, a province of Austria. The branches are stout and erect, leaves oval-oblong and toothed, or serrated, bearing some resemblance to the foliage of some species of the elm. The flowers are produced on lateral shoots six or eight inches long, on the whole length of last year's branches, and like the branches, stand erect. The flowers are a trifle larger than the lance-leaved, and are produced in pyramidal clusters of forty or fifty flowers in each. The stamens being very numerous and longer than the petals, which is not the case in *lanceolata*, dim the whiteness of the flower, which would be otherwise snowy white. When compared with the *lanceolata*, it is at once distinguished by a comparative coarseness in all its parts. The shoots are stronger and more erect; foliage larger and rounder; flower shoots not so numerous; heads of flowers larger, more pyramidal; flowers larger, more reflexed; stamens longer. In all the parts, indeed, there are very important and striking differences. Propagated in the same way as the other, and blooms exactly at the same time, but does not last quite so long. The above engraving of this is quite imperfect, not showing the pyramidal form of the cluster of flowers; the leaves also are below the natural size.

There are several other species of Spiræa, both shrubby and herbaceous, that we consider highly desirable ornamental plants, and we shall hereafter take occasion to notice them.

FRENCH MANAGEMENT OF PEAR TREES.

We have before had occasion to remark, that the French understand the culture and management of garden fruit trees better than any other people in the world, and we have often wondered why England, so industrious, so persevering, in gleaning materials from all parts of the world for the advancement of horticulture, should so long have neglected to benefit by their beautiful and perfect system. In no other country has the subject of fruits and fruit trees received more attention than in England. Walls, borders, training, pruning, &c., have been unceasing themes of investigation and discussion among their best practical and scientific cultivators, for centuries. No pains or expense have been spared in experiments on the subject; but as yet their success is very limited. To be sure their climate, for some fruits, is very unfavorable; but at the same time their system is defective. The fruit garden at Chiswick shows this at a glance, and it seems they begin to feel conscious of it now. They would have felt it long ago, if the nurserymen and cultivators had taken a trip now and again across the channel, and examined the fruit trees of France and Belgium. It unfortunately happens with too many of the English cultivators, that they imagine whatever is not known of gardening in England, is *not worth knowing at all.* This feeling of self-sufficiency operates injuriously on nations as well as individuals, and is no doubt one of the causes why a great many nice points in continental horticulture seem quite unknown in England.

Mr. Rivers, whose name is now quite familiar to us all in this country, having a greater share of enterprise than most of his contemporaries, commenced visiting the continent a number of years ago, and ever since, almost alone, has been urging upon his countrymen the adoption of the French mode of managing garden trees. He was at first laughed at and ridiculed by British gardeners; but his trees soon spoke for themselves, and confounded all the wise arguments of "practical" men. Mr. Rivers has consequently, for the last seven years, done more business in fruit trees than all the other English nurserymen besides. At length the Horticultural Society of London—the greatest institution of the kind in the world—has actually condescended to consider the subject, and after mature deliberation, agreed to send the conductor of their fruit and kitchen department to inspect the French gardens, and look into their system of management. Accordingly, Mr. Robert Thompson started on the 27th of February last, crossed the channel, and made a visit to the *Jardin des Plantes* and the *Gardens of the Luxembourg.* No man could have been sent better qualified to understand and appreciate what might come under his notice, consequently he has presented the Society with a very excellent and valuable report, which has been published in the Society's Journal. We have not space now for all of the report relative to fruit trees, but give the following extract, which being mostly on summer management, seems at this time seasonable:

> The pyramidial trained pear trees are from 10 to 15 feet high, or more, having a regularly tapering outline from the base to the top, where they terminate in a single shoot.—The young plant is stopped according to its strength, and so as to furnish side branches. These are not in stages at uniform distances along the stem; on the contrary, almost every shoot which breaks out from the stem is allowed to grow: but the laterals produced on these are pinched in summer, and even such of the leading shoots as appears likely to become too strong for the others are stopped.

All the cultivators from whom I had an opportunity of obtaining their opinion on the subject, admitted the advantages of summer pinching; whilst some regretted that circumstances prevented them from practicing it to the extent they could wish. It is however well followed up by M. Cappe. He pinches all the young shoots not required to form branches, when in a very young state; when they have scarcely pushed a finger's length, they are shortened to about an inch, or from that to an inch and a half. The portion left forms the basis of one or more fruit buds, bearing fruit in the following season, or a spur on which blossom buds are formed for bearing in the second season.

The advantages consequent on properly managing fruit trees with regard to summer pinching, are so important that attention to the subject cannot be too strongly urged. On the whole, it occasions little or no loss of time; for the confusion which would otherwise accrue is prevented; and this being the case, it is only doing that in summer which, if neglected, would occasion as much loss of time in winter. I am aware that many have more time to attend to trees in winter than in summer; but let the advantages of summer pinching be experienced, and doubtless, in most cases, due provision will be made for its performance. By the operation, the shoots necessary to be retained have the great advantage of more light and air than would be the case if crowded by a multiplicity of laterals, retained till the time of winter pruning, when they must obviously be cut off, either so close as to leave no bud to push, or shortened to within a few eyes of their bases. In the former case the branch is left naked; in the latter, when the tree is sufficiently vigorous, the eyes left generally push other shoots to be again cut back in winter; and thus crops of shoots are annually produced, instead of fruit, for many years, or until the tree approaches the state of old age.

The plan which M. Cappe pursues succeeds admirably in the climate of Paris. The fruit on the pyramid pear trees under his management is stated, on competent authority, to have been last year exceedingly abundant, large and fine.—This season the trees are healthy and vigorous, and well furnished with blossom buds. It may be said that the generally dry, clear air of Paris, is very different from the cloudy and moist climate of many parts of Britain; the one being favorable for the formation of fruit buds, whilst the other favors the growth of wood and leaves; and therefore, circumstances being different, the same practice may not be equally proper for both. There are, moreover, instances of circumstances differing so widely as to require opposite methods of culture. But this does not hold good as regards summer pinching. In England the drawback is a dull atmosphere; the shoots and foliage want more air and light. Summer pinching affords this, inasmuch as it prevents the crowding and shading of wood and leaves necessary to be retained, by that which is superfluous: and therefore it must be considered of still greater utility in dull climates than in bright, more necessary in England than in France. It is generally admitted that "where nature does most, man does least;" but with regard to the management of fruit trees an exception must rest till summer pruning receives as much attention in England as it does in the Jardin des Plantes, and elsewhere in France.

Supposing the branches of a tree are properly thinned and regulated at the winter pruning, and that so far as they extend, their number is quite sufficient for the space they occupy; presuming, also, that the tree is in good health, a number of laterals are sure to spring. They are, of course, superfluous; and every one of them should be pinched as already mentioned. If the last year's shoot has been shortened at the winter pruning, then, besides the terminal one on the part left, one, two, or three next to it are almost sure to push; and these, M. Cappe commences to check, by pinching, when about three inches in length; but those nearer the base of the shoot he allows to grow till they attain the length of six or eight inches before he shortens them. The terminal bud is of course allowed to go on for the prolongation of the branch. It frequently happens in France, and the liability will be still greater in the climate of England, that after a shoot is pinched back, the newly-formed buds on the part left will push a secondary shoot in the same season. When this is the case with those under the care of M. Cappe, he also pinches these secondary shoots to an inch or an inch and a half from where they originate. They rarely push again; but if they do, their growths are again reduced as before.

The *winter pruning* of pyramid pear trees is almost reduced to a mechanical operation, when the summer management has been properly attended to. Keeping the tapering form in view it consists in cutting each shoot a little shorter than the one immediately below it, taking care to cut a bud situated on the side of the shoot towards that direction in which it would be most desirable the prolongation should proceed. Shoots that are too vigorous for the rest are not cut to a bud on the upper side, but to one situated below.

PROCEEDINGS OF THE SECOND CONGRESS OF FRUIT GROWERS.

The late, unseasonable period at which the report of these proceedings has appeared, and the near approach of another meeting of the Congress, render a minute review at this time, of little use. A list of the fruits adopted, or recommended for general cultivation, has already been published in the Farmer, so that we shall at present extract only a few items of general interest to fruit growers, at all seasons. Last season was highly unfavorable throughout a great portion of the country, for the preparation of pomological reports, consequently but few were presented, and these were rather meagre in their contents. We shall notice only a few of the most interesting points.

Pennsylvania.—The committee of this State, in their report, notice six native apples and twenty native pears of merit, and some of which are already known to be first rate. Among the pears we find the *Seckel, Tyson, Washington,* and *Petre ;* all the rest are new or very little known. They state that the *Gray* and *White Doyenne,* both of which *here* can not be surpassed, are utterly worthless, unless in towns, where they still do well, "maturing fruit of beautiful appearance and excellent quality." The market raspberry of Philadelphia they state to be the "*Genesee,*" our *spurious Red Antwerp.* The true *Antwerp* requires protection.

New York.—The only report from this State is by B. Hodge, Esq., of Buffalo, consisting of lists of about thirty apples, thirty pears, twenty cherries, fifteen plums, and twelve peaches, which he considers the best for Western New York. Mr. Hodge says that the *Brown Beurre* and *Bezy de la Motte,* (both of which are worthless in many localities,) are superior to three-fourths of the varieties in cultivation, very productive, and of good flavor. At Philadelphia the *Bezy de la Motte* is an outcast ; and at best we consider it uncertain. The *Brown Beurre* does finely here.

Massachusetts. — The committee of this State simply reported lists of fruits to be placed upon both the approved and rejected lists. The approved sorts were all added to the recommended lists of the Congress. The rejected varieties consisted of about one hundred and twenty pears and ten apples, very few of which have ever been known or cultivated to any considerable extent.

Vermont.—The report from this State is made by C. Goodrich, Esq., of Burlington. He states that the *Ribston Pippin* and English apples generally flourish well, and also the Canada sorts *St. Lawrence, Pomme Gris,* and *Bourassa.* The *Esopus Spitzenburg* is apt to be spotted, and for that climate is not equal to the *Baldwin, Hubbardson Nonsuch, R. I. Greening,* and *Roxbury Russet.* Among pears, the *White Doyenne* is always fine and the trees healthy. *Dearborn's Seedling* is considered the best summer pear.

Connecticut.—The report from this State is quite comprehensive, treating of all the fruits cultivated there except apples, the report on which is deferred till another year. It appears that, excepting a few drawbacks, all sorts of fruit succeed there very well. The *Antwerp* raspberries are too tender, and gooseberries are liable to mildew. Peaches are so affected with the yellows, that in many cases they do not live to a bearing age ; and if they bear at all, only for one or two seasons. Mr. Downing, the chairman of the general fruit committee, adds the following note to this part of the report :

"The explanation of the great prevalence of the *yellows* in Connecticut lies, we imagine, in the fact of the large introduction, of later years, of unhealthy trees bought indiscriminately in the markets of New York. A little attention to destroying every tree already affected, and introducing those of healthy constitution from other districts, will very soon result in the production of the finest fruit again, as has been abundantly proved in many parts of the State of New York."

Much attention seems to be given to the pear culture. A large number of seedlings have been originated in New Haven and neighboring towns, among which the *Calhoun, Howell, Citron, Dallas, Henrietta, Elizabeth,* &c., are spoken of as being nearly first rate. The "*White Doyenne*" is noted "not good." The committee remarks that, "Quince stocks for pears, especially for the garden, are coming very much into favor. The fruit appears to be fairer, handsomer, and better than when upon pear stocks. Pear trees with us appear to be entirely exempt from disease." Apricots are in all cases trained to some building, and have been observed on the north, south and east sides, doing well in each aspect.

Maine.—According to the report of the committee, the people of this State are but beginning to turn their attention, in a general way, to fruit culture. The apple, plum, and gooseberry, succeed well, the latter particularly — better than in any other State in the Union ; the cool northern climate suits its constitution. The quince has only been known to succeed on the banks of the Kennebec. The peach proves a failure in the open ground.

Ohio.—The scarcity of fruit there, as elsewhere, last season, prevented the committee of this State from making a general report ; but Mr. McIntosh of Cleveland, reports on his own responsibility a list of about twenty apples, fifteen pears, fourteen cherries, a dozen peaches, half a dozen plums, &c., that succeed well. With very few exceptions, they are all on the list recommended by the Congress.

Missouri.—The committee of this State report a very destructive prevalence of the pear blight — so much so, that they fear it will not leave a tree living in the country. Our best keeping apples, such as *Greening, Jonathan, Roxbury Russet,* &c., are there fall apples, owing to the difference of climate. The three best apples, one for each season, they state to be *Early Red Margaret, Rambo,* and *Rawle's Janet.* The best grape they have yet tested for wine, is the *Catawba.* Peaches do well. Plums are short lived. *Duke* and *Morello* cherries succeed well, but the free-growing sorts are short lived. The quince succeeds poorly.

Iowa.—In this new State horticulture is taking root vigorously ; two Horticultural Societies are already founded. Apples are grown in perfection ; peaches very uncertain ; only the hardiest cherries

can be produced; small fruits do well; pears and other fruits not fairly or fully tested yet.

KENTUCKY. — L. YOUNG, Esq., chairman of the fruit committee of this State, communicated to the Convention that he had succeeded in preventing the ravages of the *curculio* on smooth-skinned fruits, and of the scaly aphis on the orange and oleander trees, by the use of lime. (For an account of this, see another part of this paper.)

DISTRICT OF COLUMBIA. — This report has reference mainly to the frequent destruction of the fruit crop in that region, by late spring frosts. These are avoided by planting in elevated situations. A number of observations and facts are given, showing the difference of temperature in frosty weather between the high and low situations — a difference amounting in some cases in the same grounds, to 14½ degrees. The committee also alludes to the benefits of pruning and manuring, and thinning the fruits by hand. The improvement is stated to be so great, that Mr. GEO. W. RIGGS, one of the committee, who pursues this system, obtained in 1848 two dollars per basket for his peaches, when the market was glutted and common productions selling at twenty-five to forty cents.

VIRGINIA.—The report from this State, owing to the backward condition of fruit culture there, is not of much importance; but it is stated that more attention is now being paid to these matters, and by and by we shall learn something of Virginia fruits and fruit growing capacities.

GEORGIA.—The report from this State speaks very favorably for the successful culture of fruit there. Apples, pears, peaches, apricots, nectarines, grapes, and figs, succeed well; cherries, only the *Dukes* and *Morellos*. The *Seckel* pear is said to attain twice or three times its usual size here; the *White Doyenne* is healthy and fine; *Beurre Diel* and a large number of the best pears fully sustain, and in some cases exceed, their northern character.

These reports, imperfect as they are, can not fail to give an enlarged idea of the varied and almost boundless capacities of our country for the culture of fruits. From "Maine to Georgia" they show that a new spirit of improvement is taking thorough hold of the public mind, and the country's vast resources are but beginning to unfold themselves. Every portion of the country is so connected with the other, by so many and such rapid modes of communication, that the variations of soil, climate, and production, are a great source of interest and advantage to all, instead of being a source of regret or disadvantage to any.

THE SEASON, CROPS, &c.

THE season here is about a week or perhaps ten days later than usual, as indicated by the maturity of fruits and opening of flowers. The first strawberries were exhibited on the 15th of June, by M. G. WARNER, Esq. — *Large Early Scarlet*. Green peas of the *Early Emperor* variety, and the first of the season, were exhibited by JNO. DONNELAN of Greece. *Bauman's May* cherries are ripe, and the June roses are just beginning to open now, June 17.

The fruit crop, excepting peaches, looks well. Apples, pears, plums, cherries, and all the small fruits will be abundant. Our peach crop was injured in precisely the same way as last year, by a long period, say two or three weeks, of rainy, cold, windy weather, at the time of blossoming and setting of the fruit. On the 17th of May the wind blew a perfect hurricane, and that alone injured the blossoms much; but the cold wet weather after that had a more fatal effect; the growth of the peach was wholly suspended, the leaves became swollen and curled in appearance, and dropped off, until old trees and badly pruned ones have all but died; young trees that have been kept tolerably well pruned or shortened in, have suffered less, and in most cases are bearing a middling crop. It seems as though our climate was undergoing a change, by which peach culture will be much more difficult than formerly, and a more thorough system of management absolutely necessary.

The *curculio* is engaged in its work of destruction with as much rapacity as ever, and some people say more. Apples and pears, it is said, are considerably injured by its attacks. The new remedies have been tried, viz: *whitewashing* and *dusting with powdered lime*. We hardly dare hope to hear of their success. Our impression is, that unless the whitewash is laid over the entire surface of the young fruit as nicely as it can be done with a paint brush, (and this is quite impracticable,) that it will fail to repel this insect; but the way is, in this most desperate case, to try anything that has even a *possibility* of success.

MUNSON SWEET AND NORTHERN SWEETING APPLES.

P. BARRY: — Since the publication, in the Farmer, of thy notice of the Northern Sweet, and remarks of the probable identity of that variety with the Munson Sweet, I have taken measures for testing the matter by an exchange of scions with friend STORRS of Marathon, so that by comparison of both kinds growing and bearing *together*, both in his grounds and mine, we may hope in a short time to ascertain whether they are the same kind or not. In the mean time, I would say that J. STORRS, as well as myself, is already pretty well satisfied that they *are distinct*. He thinks they are "unlike — first, *in the form of the fruit* — the Munson Sweet being more flattened and less ribbed; second, *in the color of the flesh* — the Munson Sweet being more yellowish; third, *in the season of maturity* — that of the Munson Sweet being from October till February, and sometimes till April." He also states that "the tree is a *strong* grower, the young wood making thick, heavy, rather dark colored, and short-jointed shoots;" whereas, my Northern Sweet, though a *good*, is not a *strong* grower, the young wood making shoots rather slender than "thick and heavy," and rather light than "dark colored," and by no means "short-jointed," but rather the reverse. Judging from the scions of the Munson Sweet received from friend STORRS, I have no hesitation in believing that they *are* distinct. In fact, there is no more similarity between them and scions of the Northern Sweet as grown here, than between the Baldwin and the Porter.

Should it prove, as I have no doubt it will, that these two sorts are distinct, and that the Munson Sweet is really as good a fruit as the other, then we shall have in the two all that can be desired in the class of sweet apples, from the latter part of the ninth month till into winter. J. BATTY. — *Union Nurseries, Keeseville, N. Y., 5th mo.*, 1850.

We are much obliged to our friend for his suggestions. As we have both kinds now growing, we shall soon be able to determine, as far as growth is concerned.—ED.

WHITEWASHING A REMEDY FOR THE CURCULIO.

A GENTLEMAN near Louisville, Ky., L. YOUNG, Esq., a prominent horticulturist of that vicinity, has communicated to the Massachusetts Horticultural Society details of experiments made in 1848 and 1849, with lime on smooth-skinned fruits, to prevent the ravages of the curculio. The experiments appear to have been carefully made, and the result induces Mr. YOUNG to believe that lime, if applied to apricots, nectarines, and plums, before they are stung with the curculio, and continued during the first four weeks of their growth, will prove a more efficacious remedy than anything yet discovered. He first dusted the powdered or slaked lime over the trees, and afterwards, for the purpose of coating the fruits more effectually, syringed them with water before applying the lime, which amounts to the same as whitewashing.

Experiments of the same nature have also been communicated to the Massachusetts Horticultural Society by M. H. SIMSON of Saxonville. He says, "I shovered the trees before the bud broke, with whitewash, with my hand engine, covering the branches *entirely*." If this does not answer the purpose, he says, "I shall syringe the fruit when little larger than a common white bean. My experiments have convinced me that this latter method is a *sure preventive*."

This *whitewashing* strikes us rather favorably. We have given it a fair trial, and trust we may be able to report favorably. A lady in our neighborhood has this season dusted her trees with *ashes* every morning; and she thinks she has thus far saved her fruit, in a great measure.

THE AMERICAN POMOLOGICAL CONGRESS.

THE next session of this body is to be held in Cincinnati at the same time of the great Fair of the "Ohio State Board of Agriculture." The season is too early for the north and east to make any very important contributions; but we have no doubt, from the spirit now manifested in regard to fruits and fruit trees through the West, that they will make a grand display, and bring together at the same time a vast fund of information respecting the peculiarities of their soil, climate, and productions.

It may be well enough in this connection, to remind fruit committees, fruit growers, and pomologists, that at the last session of the Congress in New York, the following resolution was adopted:

Resolved, That all Pomologists throughout the United States and the Canadas, be invited to forward to Mr. A. J. DOWNING of Newburgh, N. Y., at any or various times during the time elapsing from the adjournment of this Congress and two weeks previous to the assembling at Cincinnati, communications respecting varieties of fruits and fruit trees, shrubs, or vines, and of diseases appertaining thereto; such communications to be collated by Mr. DOWNING, and presented to the next Congress at its sitting in 1850. All such communications to be pre-paid.

THE STANWICK NECTARINE.—The first twenty-four trees of this famous fruit, originated in the Duke of Northumberland's garden, England, were sold in lots of one tree each, at auction, on the 15th of May last, for the benefit of the Gardeners' Benevolent Institution. Some sold as high as ten guineas, and none less than two. The 24 trees brought over $800. It is said to be as much superior to all other nectarines, as the Green Gage plum is to all other plums.

PEONIES.

WE have already (June 19,) taken note of twenty varieties of this brilliant class of plants, and the Chinese species are but begining to open. We shall take an early opportunity to notice some splendid new sorts. It is nearly a month since the earliest bloomed, and to all appearances the late ones will continue to bloom for three or four weeks to come. A collection of these superb, showy flowers, blooming through a period of two months, is a matter worthy of the attention of all who are seeking really good, and easily managed, flowering plants.

Mr. DONNELLAN, of Hanford's Landing, near this city, has raised within a few years, some very fine seedlings, hybrids of Whitlejii, and some of them surpassing in size, beauty, and fragrance, that famous old sort. Mr. DONNELLAN has named two *Major Williams and Olive Williams*. The first we have never seen, being away from home last season when it bloomed, but the last one, *Olive*, we saw yesterday, and it is really a superb flower. It is larger, fuller in the centre, quite as fragrant as the Whitlejii, and is distinctly marked with stains of deep red on several of the centre petals. We visited Mr. DONNELLAN's garden a day or two ago, and find that he has a large number of seedlings coming forward, from which he will no doubt obtain some valuable and novel varieties. We found his grounds greatly improved, his crops of vegetables abundant and fine, and everything prosperous. No man is more worthy of success.

PORTRAITS OF "EMINENT HORTICULTURISTS."

DR. KENNICOTT, of Illinois, who is now well known to the Horticultural world as one of the most prominent and useful nurserymen and pomologists of the West, has been furnishing, for the "Prairie Farmer," a series of "pen and ink sketches" of the men who composed the Syracuse Pomological Convention. The subjects noticed have no reason to complain, unless it be that the Doctor, like some other *artists*, has colored a *little too high*—though we do not profess to be a critic in such matters.—The Doctor is the first public writer who has condescended to notice in this way, such *unassuming* individuals. "Eminent men" of all other professions, from the Parson to the pick-pocket, are duly noticed by the press when they happen to assemble in Convention; but up to this time Horticulturists have passed unnoticed. We begin to think they are really growing into importance, and take note of the fact with no small degree of satisfaction.

NORTHERN SPY APPLES.

MR. BARRY—*Dear Sir:* A barrel of Northern Spy apples were brought into market this week, which opened very fine. Some I have eaten of them were as good as I ever saw—perfectly fresh and juicy. These sent you were the last of the barrel, and I fear they will taste of the barrel.

Accept, from your friend, J. H. WATTS.

Rochester, June 7, 1850.

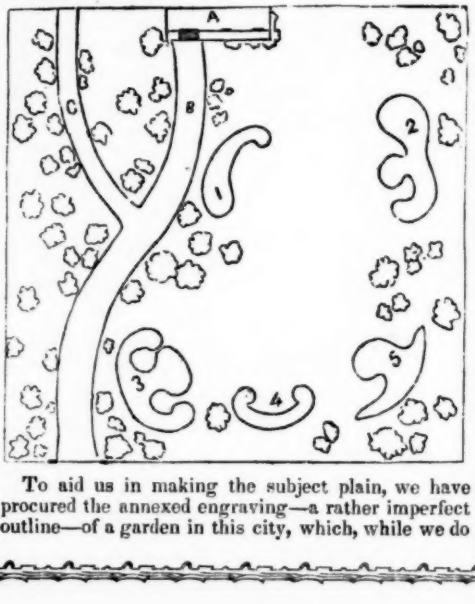
The apples sent us with the above note, were in good condition, sound and juicy, and were really a luxury at this season of the year. Many of our citizens had an opportunity of testing their good qualities.—ED.

Ladies' Department.

FLOWER GARDENS.

MESSRS. EDITORS:—Although late in the season, I wish to ask a little advice of you about fixing my flower garden—the size of it is about fifteen by twenty feet. I read with much pleasure your "Ladies Department," in the May number, and your directions to make a garden; but then it didn't seem to suit my little patch, where everything has to occupy as small a space as it possibly can. Now you know that there are hundreds and thousands in our cities and large towns, that have to content themselves with just so small a space—and some even yet smaller—where the *effect* is mostly produced by the appearance of the flowers themselves, rather than by any peculiar formation of the beds and walks, and the romantic arrangement of the shrubbery. My yard contains a large oval bed in the center, occupied mostly by perennials, around which is a walk, and then a border, such as is naturally left by cutting out an oval. The border contains all the shrubbery and a few annuals, which occupy the vacant spaces. This is as good an arrangement as I know how to make; but, Messrs. Editors, if you will be so kind as to offer a few hints for further improvements, they will be gratefully received and appreciated by MIGNONETTE.—*Rochester, June*, 1850.

Building lots in our smaller cities are generally thirty to thirty-three feet front, seldom we believe smaller, and often much larger. Persons designing to build, often purchase a lot and a half, or two lots, thus giving them a front of from forty-five to sixty feet. In villages, and in the suburbs of cities, lots are seldom less than a quarter of an acre. When building on a small lot of forty or sixty feet width, the house should be set back the same distance from the front line as the width of the lot, if the depth of the lot will admit of it: thus, if the lot is thirty feet wide, you have a front yard or lawn thirty feet square; or, if sixty feet wide, a lawn of sixty feet. The latter size is large enough to give a very pretty lawn and an abundance of room for flower-beds and shrubbery; and even a square of thirty or forty feet may be made pleasing and beautiful. It is the province of correct taste to overcome natural difficulties, and to turn to the best account the means within our reach. Perhaps as much real taste can be displayed in laying out a thirty foot plot, as in decorating broad acres.



To aid us in making the subject plain, we have procured the annexed engraving—a rather imperfect outline—of a garden in this city, which, while we do not present it as a model, we consider laid out with pretty good taste. The lot is sixty feet wide, and the house, a neat little cottage, is sixty feet from the street, making the lawn, of course, sixty feet square. A, is the house; B, the main walk from the garden gate to front door; C, road leading from main walk to back door. The whole is covered with grass, except the walks, which are gravelled. Numerous flowering shrubs are scattered in little groups over the lawn, (the grouping of which the engraver has not done justice to,) and a few shade trees are planted near the outer edges. Fig. 1 is a bed of ever-blooming roses, nicely cut out in the grass; fig. 2, a bed of petunias; fig. 3, verbenas; fig. 4, scarlet geraniums; fig. 5, phloxes. Perhaps with a piece of ground of even less than thirty feet, something of the same form might be retained, with smaller beds or less in number. The form of these beds might be varied to suit taste and circumstances, always remembering to use curved lines instead of the old-fashioned sharp angles.

It will be noticed that the garden gate is near the corner of the lot. This makes an apparent necessity for a winding walk. If the front gate was near the center of the lot, and opposite the front door, a winding walk would not appear natural and graceful,—it would look too much like over-strained effort—a forced attempt at the graceful.

In so small a space as "Mignonette" has at command, truly little can be done for the picturesque; but still we think a nicely curved walk, with such a bed as our correspondent describes, cut out of a well kept carpet of grass, with a few shrubs planted in little groups, would be much cleaner in appearance and prettier every way, from the first shooting of the blades of grass in spring, until covered by the snows of winter.

TO DESTROY INSECTS ON HOUSE PLANTS, &c.

EDS. GEN. FARMER: I write, not so much to claim the "Floral Rake," (to which, however, I have a *fair* title, by the terms of your offer,) as to obtain information in regard to the best mode of destroying insects on parlor plants. I have reference more particularly to the minute red spider. My choicest plants have been totally destroyed by this pest, which feeds upon the foliage and juices, and resists all the destructive agents I have been able to employ. They thrive upon soap-suds, grow fat upon tobacco, and will not stay killed by the summary process of squeezing to death. What shall I do next?

As not only the flower-stand and the garden, but the poultry-yard, likewise, claims a share of my attention, I should like to know how to classify some new pets. I procured, from the neighborhood of Boston, the eggs of one of the large breeds of fowls, the Cochin China, as I supposed. The eggs were not "mahogany," but salmon color. The chickens, now two weeks old, are very light colored, thicker in the neck than ordinary, larger, though not conspicuously so, than others of the same age, and are feathered on the outside of the legs. Are they Shanghaes? I shall be delighted if you answer in the affirmative. M. A. F.—*Northampton, N. Y., June*, 1850.

The red spider is certainly a "pest," but when properly dealt with, can be made to surrender very promptly. While tobacco-water easily destroys the *green louse*, or *aphis*, the "spider," if he does not "*grow fat*" upon it, like some other creatures, shows no dislike to "*the weed*." The best way to destroy them is to burn a little sulphur under the plant. Your enemy will soon smell brimstone and come down.

The eggs of the Cochin China fowl, although called mahogany, are more of a salmon color. The

eggs of the Shanghae are of a lighter color, though they may be very properly called a salmon. Your chickens are probably Shanghaes. The feathered leg is the most marked distinction between the Shanghae and Cochin China.

FAIR AND FLOWERS IN SENECA COUNTY.

The *Agricultural* Fair of Seneca County is to held at Ovid, on the 26th and 27th of September next. H. D. Didama, the Secretary, has furnished us a list of premiums. But what will interest the ladies more particularly, is the *special* premiums offered on flowers. There are some true lovers of the beautiful, in Seneca County. They not only possess the taste, but the zeal and activity that can not fail to accomplish good. It will be seen by the extract we give from the list of "*extra premiums*," that a "*floral fund*" is to be raised by contribution, and very liberal prizes awarded. Had not our Seneca County friends been quite so exclusive, we should like to have taken a few shares of that floral stock. However, we shall endeavor to see for ourselves the fair and flowers of Seneca County, in September.

1st. For the greatest variety, and choicest specimens of flowers, grown and cultivated from seed sown or planted in Seneca County, by any young unmarried lady, not over twenty-five, nor under sixteen years of age, Loudon's Flower garden of Ornamental Annuals—value $12.

2d. For the second greatest variety, and choicest specimens of flowers, under the same regulations, Lindley's Vegetable Kingdom, or the structure and uses of Plants, with illustrations—value $8.

3d. For the third greatest variety and choicest specimens of flowers, under the same regulations, Loudon's Gardening for Ladies, illustrated—value $2; and Popular Flowers, their cultivation and treatment, in all seasons, plates—$2.

The funds for procuring the prizes shall be contributed by gentlemen resident in Seneca County, in sums not less than one dollar each, and expressly for the above purpose; and the contributors to this "floral fund," shall be entitled to *premiums* under the following terms and regulations:

1st. For the best essay on "The influences of rural life, and pursuits upon the human mind."

The successful competitor shall be allowed to present the premium awarded for the greatest variety of flowers, and to receive from the successful lady a boquet of the choice and rare flowers cultivated by her.

2d. For the best essay on "The relation of vegetation to seasons, or the periods of growth and the periods of rest."

The successful competitor shall be allowed to present the premium awarded for the second greatest variety of flowers, and to receive from the successful lady a boquet of the choice and rare flowers cultivated by her.

3d. For the best essay "On the colors and odors of flowers."

The successful competitor shall be allowed to present the premium awarded for the third greatest variety of flowers, and to receive from the successful lady a boquet of the choice and rare flowers cultivated by her.

The committee appointed by the Society as Judges on fruits, flowers, and vegetables, shall decide upon the merits of the flowers presented under this arrangement, and shall award the premiums in their discretion.

A committee shall be appointed by the officers of the Society to examine and decide upon the merits of the several essays, and adjudge the premiums in their discretion.

All essays shall be transmitted to the President of the Society, on or before the first day of September next, signed with a fictitious name; and the writer shall enclose his proper name in an envelope, sealed and superscribed with the fictitious name, which envelope shall not be opened, unless the party presenting it proves to be the successful competitor.

All essays not entitled to a premium shall be returned to the writers as they may direct.

All persons disposed to contribute to this fund, will please to transmit their several contributions to John D. Coe, Esq., Treasurer, at Romulusville.

Youths' Department.

THE ANALOGY BETWEEN ANIMAL AND VEGETABLE LIFE.—No. 1.

The elementary materials of animal and vegetable matter are precisely identical; the organs essential to the growth and reproduction of each are similar, and they are nourished or destroyed by the same agencies. That internal, invisible power, which we call the "principle of life," forms a clear distinction and boundary between organized, or living bodies, and all inorganic, or mineral substances, in the universe. But between animals and plants, no such great distinguishing trait exists. The *cabbage* is no less alive than the *cow* that feeds upon it. The superiority of the latter over the former consists chiefly in this—the existence of mind, intellect, brain, and nerves; of which the plant is deficient. In their more perfect forms, the distinction between animal and vegetable life is obvious enough—for instance, no one would be likely to confound a *horse chestnut* with a *chestnut horse*; but as we approach the extremities of the animal and vegetable kingdoms, the distinction is not so easy. There are many natural productions, such as *sponges* and some *fungi*, which were originally considered minerals, afterwards vegetables, and are now universally regarded as belonging to the animal kingdom. Plants are aptly termed the connecting link between the mineral and the animal. It is not unlikely that they existed for ages on this planet before animals appeared. From the crumbling *debris* of the granite rock, moistened by the rain, springs the moss which nourishes, or supplies with organized food, the moose and the deer. That subtle essence which we term *vitality*, or the *living principle*, is a curious subject for study and research. To endeavor to analyse or investigate it, seems penetrating into the very *arcana* of nature. In what part of the plant it chiefly exists, or to what quarter it retires during the winter, we know not; and we are just as ignorant in regard to animal life. In both it operates towards every point—it exists and resides in the whole; and the proof of its existence is drawn from its resisting those putrefactive or chemical agencies which instantly begin to operate when it becomes extinct. While life exists, the animal or vegetable thrives, and increases in bulk; the tree puts forth annually a new progeny of buds, and becomes clothed in a beautiful foliage of lungs (for every leaf is a distinct lung,) for respiration, thus absorbing from the air through its leaves, and from the earth by its roots, the food necessary for its growth and perfection; while from its decay, as from the death of animals, there is formed in rich abundance the means of new births, new buds, and new harvests.

Such is the simple, but beautiful circle of nature. That which lives, flourishes, decays, and dies, is not lost—the great principle of life only changes its form, and the destruction of one generation of plants and animals, is but the necessary preparation to the support and existence of the next. F.

To the man of *thought*, not only the elaborate works of some great author, but the simplest sentence, furnishes abundance of material. The works of nature, the starry heavens, the mighty cataract, the whirlwind and the storm, and even the woodland flower, calls forth the most elevated sentiments.

Editor's Table.

DESTRUCTIVE INSECTS.—We should judge from our correspondence and the many applications we have for the best means of destroying *cut-worms*, that these insects were very numerous and destrctive in some sections, the present season.

Cut-worm is the name applied to any caterpillar dwelling in the earth, which eats or cuts away young plants of cabbage, corn, beans, &c. They are naked, of a greasy appearance, and are only seen above ground before sunrise or in cloudy weather. They abound usually in lands which have remained for a long time in grass or clover. The *wire-worm* is probably one of the most destructive and the most difficult to get rid of, of the class. It derives its name from its slender form and hardiness. It is the grub of a small beetle, and lives in the larva state nearly five years, supporting itself upon the roots of wheat, rye, oats, and grass. The most successful mode of destroying it, has been by offering more tempting food, as laying clover covered by a stone near the plants they would be likely to destroy, examining and destroying the insects that will be collected to feed on the clover. In England they stuck slices of potato upon skewers, and bury them near the seeds sown; the worms collect upon them, and are destroyed in great numbers.

White Grub is the name generally given to the grub of the Cockchafer, or May-bug. The eggs of this devastator are white. They are deposited in the ground, where they soon change into a soft, whitish grub, with a red head, and about an inch and a half long. In this state it continues four years, during which time it committs most destructive ravages on the roots of grass and plants. Frequent plowing and hoeing annoys them. Salt and lime we have found exceedingly beneficial, though we never tried it on a large scale: and if much troubled with the *wire-worm* or the *grub*, we should certainly sow arsenic on the land, as recommended by JOHN PARK of Gates. We should like to have some of our farmers try it, and give us and our readers the benefit of their experience.

INTERESTING EXPERIMENT.—The May number of the London Farmer's Magazine gives an account of an experiment made near Glasgow, in the application of 34 pounds of saltpetre to an acre of wheat. One half of the salt was sown the 17th of April and the other the 6th of May. Unmanured wheat weighed 2552 pounds; straw, 3143 pounds. Manured wheat, 3068 pounds; straw, 4500 pounds. Difference in weight of wheat, 516 pounds; in straw, 1352 pounds.

The above figures demonstrate the interesting fact, that each pound of the salt named gave a gain of six pounds of wheat and sixteen of straw—twenty-two in all.

NORTON'S ELEMENTS OF SCIENTIFIC AGRIOULTURE.—This is the work to which was awarded the premium of $100 by the N. Y. State Ag. Society. It is a small book of some 200 pages, but a great one, in its best sense, containing the elements of scientific agriculture. Its language is plain, its illustrations simple. It is a work for the farmer, and the farmer should read it, and teach it to his children. By JOHN P. NORTON, Professor of Scientific Agriculture in Yale College. Published at Albany, N. Y., by ERASTUS H. PEASE & Co. Price 50 cents.

THE POULTRY YARD.—This is the title of at *least* one of the best books ever published in this country on the subject of Poultry. Its author is Dr. J. C. BENNETT, of Plymouth, mass. Dr. B. has done more than any other man to create the interest now felt on the subject of Poultry, and he has written a good book. Published at Boston by PHILLIPS, SAMPSON, & Co. Price 75 cents.

MOWING MACHINE.—Those who have addressed us on the subject of Mowing Machines, are informed that G. W. ALLEN & Co., manufacture "Ketchum's Patent Mowing Machine," at Buffalo, N. Y. This machine is a good one. Price $100.

THE citizens of Lockport in this state, are about to establish a Horticultural Society. This is right. Our friends in Lockport could not have sustained much longer their reputation fer taste and inteligence without such a society.

SEVERAL advertisements, and an engraving of Seymour & Morgan's Reaper, to accompany their advertisement, we are compelled to omit for want of room.

WE are receiving from FOWLERS & WELLS, N. Y., a number of useful publications, which we may give further notice hereafter.

THE SOUTHERN PLANTER is the name of a new agricultural paper just commenced at Glasgow, Ky. It contains some very good matter, but is so poorly printed as to be scarcely readable.

Daguerreotypes that are Daguerreotypes.

BROWN & HOWARD'S Emporium Daguerrean Gallery. No 9, second floor Gould Buildings Having opened a splendid Gallery in the Gould Block, would respectfully invite the public and all those wishing good likenesses, to give us a call, and we will assure them they will not waste time and money, as is often the case. Our Gallery is furnished in a style of unusual splendor, equal to any in the State. The walls are adorned with some of the finest works of Art, both of pencil and engraver.

Strangers visiting the city, and having a few leisure hours, will be amply rewarded by a visit to our Gallery, which will be kept open during all business hours. Please call and examine for yourselves.

WM. BROWN,
JOHN HOWARD.

The undersigned takes this method of informing the citizens of Rochester and vicinity, that by the solicitations of many citizens, he has been induced to return to the city for the purpose of making it a place of permanent location. Having been absent from the city one year, and in constant practice, experimenting in the above named Art, has now returned better qualified than ever, not only to sustain, but excel my former reputation as an Artist, being well known in this city and vicinity, as formerly principal operator in Mercer & Co.'s Gallery, corner of Main and St. Paul streets, would now respectfully invite my old friends, and the public generally, to call at No. 9, Gould Buildings, where you can see likenesses that will speak for themselves.

[7-tf] W. BROWN.

Savings Bank.

THE MONROE COUNTY SAVINGS INSTITUTION will be open daily, at 10 o clock A. M., to 3 P. M., at the Rochester Bank building, No. 22 Exchange street.

TRUSTEES.

Everard Peck,	Daniel E. Lewis,
David R. Barton,	Thomas Hanvey,
Charles W. Dundas	Moses Chapin,
Levi A Ward,	Ebenezer Ely,
Lewis Selye,	Amon Bronson.
William N. Sage,	George W. Parsons,
William W. Ely,	George Ellwanger,
Alvah Strong,	Joel P. Milliner.
Martin Briggs,	Ephraim Moore,
Theodore B. Hamilton,	Nehemiah Osborn,

Freeman Clarke.

FREEMAN CLARKE, Treas. EVERARD PECK, Pres't.
Rochester, July, 1850. [7-tf]

Threshers Take Notice.

THE subscribers manufacture an eight-horse power that stands on a low wagon when in operation, thereby saving the trouble of loading and unloading either Horse Power or Separator. The Horse Power is double geered, yet has less than one-half as many boxes and mashes of gearing as any other in use. They can be set ready for use by one man, in half the time required for other Machines. The Cleaner possesses facilities for separating the grain from the straw, superior to any other, never winds and is capable of threshing from three to six hundred bushels of wheat per day. They have been introduced into most of the grain-growing States with unexampled success. Those wishing Machines, can have the privilige of thoroughly testing them before purchasing. The price of both Machines, with a carriage for each, is only $275. The above Machines are kept constantly on hand and for sale at Woodbury's steam works, on Canal street, Rochester, N. Y.

Smaller sizes furnished, if desired. Also, for sale the right of territory on both the above Machines. J. & D. WOODBURY.

TO FARMERS.

CASH PAID FOR RED ROOT SEED AT MY OIL MILL.

M. F REYNOLDS, manufacturer of Linseed Oil, White Lead in Oil, Sash, Doors, and Blinds. Stained and enamelled Glass;

AND DEALER IN

Paints, Oils, Varnish, Glue, Brushes, &c.; French, English, and American Plate, Crown, and Sheet Glass, French White Looking Glass Plates, &c, 17 Buffalo street, Rochester, N. Y.

Land for Sale.

200 ACRES of excellent Land for sale in Hillsdale Co., Michigan. 10 miles from the county seat. Eighty acres has been in cultivation several years. Shingled log house and good springs. Payments, $1000 or $1200 in hand, and balance with interest, to suit the purchaser.

Apply to the Editor, or address him, post paid.

McCORMICK'S PATENT VIRGINIA REAPER.

THE undersigned respectfully informs the farmers of the wheat-growing portions of New York, New Jersey, Delaware, Pennsylvania and Maryland, that he has made arrangements for supplying them with his Reaper for the harvest of 1850, from his manufactory at Chicago, Ill., and refers them to the manufacturers, (C. H. McCormick & Co.) or to Hon. Thos. J. Paterson, of Rochester, N. Y., which is to be the general depot for the sale and delivery in Western New York. Mr. Paterson, who has recently traveled through several of the Western States and has become well acquainted with the character of the Reaper there, as their general agent to attend to the sale and delivery of the Machines, has appointed agents in the different counties, to effect sales of the same.

The undersigned deems it unnecessary through the press, to say much in offering his Reaper to the public.

Perhaps the *best evidence* of the value of the undersigned's Reaper, is the unparalleled demand for it over all other Machines, where best known—near 1,500 of which were manufactured and sold at Chicago the last year, about 100 having been sold in the West for the harvest of 1846, 450 for that of 1847, and 750 for that of 1848; and 1,600 to 2,000 are being manufactured at that place for the next harvest. And it may be added, that at the New York State Agricultural Fair, held at Auburn, for the year 1847, the first premium of the Society was awarded to this Reaper; that the Diploma of the Society with a strong recommendation to the confidence and patronage of the Farming community, was awarded to it at the last State Fair at Syracuse—a *Chicago* Reaper being present, where no premium was awarded to the Auburn Machine; and that the Gold Medal of the "American Institute" was awarded to the same machine in October last.

It has not been manufactured heretofore at Brockport, New York, with the *the recent and very great improvements* that have been made in it at Chicago.

One of the Machines, as lately improved, cut, in the last harvest, 800 acres, without a shilling's repair, and without sharpening or changing the sickle, and, without clogging in either green or wet grass, grain or weeds. Two of the Chicago Reapers were sent to the Genesee country for the last harvest, one of which was sold to Mr. Martin, of Victor, Ontario Co., who was so well pleased with it that he paid for it immediately after harvest, without waiting until December, the time upon which it was sold. The other was sold to Mr. Case, of Fowlerville, Livingston Co.—where several other Machines, manfactured at that place, without the latest improvements, were sold—and found so much superior to all other Machines, that this gave general satisfaction, to the purchasers of which he would refer.

The Reaper will be delivered in Buffalo or Rochester—$30 payable on delivery, and $80 on the 1st of December thereafter, with interest; or for $105, cash, which is $10 less than the price at Chicago.

It will be warranted to cut two acres of wheat or other small grain, in an hour, on tolerably smooth ground, with a reasonable deduction for decreased speed when the ground is uneven or hilly; and to save three-fourths of the grain lost by cradling; and it will be warranted to be well made, of good material and durable. To be returned and the advance money refunded, if, on trial by the purchaser, it fails to perform as warranted.

The undersigned need only add that, encouraged as he is by past success, and prepared as he is at Chicago with the best material and the best machinery and workmanship that can be used in the manufacture of machinery, he is now determined at once to introduce his Reaper in the territory above mentioned as suited to its operation, and on terms that *cannot fail* to give satisfaction. On those tems no one wanting a Reaper need wait "to see one operate," as no trial made by others, and *only seen*, could be so satisfactory as the conditional one to be made by himself, as proposed. He is not asked to take any responsibility in the matter, as, by a calculation which any body can make, if the Reaper performs as warranted, it does more than pay for itself in every harvest. The undersigned has succeeded with his Reaper in superceding, to a great extent, all other means of harvesting in the West; and he hopes to merit the same success in other wheat-growing portions of the country.

In the last number of this paper, I gave notice that I had commenced a suit against Seymour & Morgan, of Brockport, for a palpable infringement of my patent, in their Machine (inferior as it is in many respects to my Reaper) got up for the purpose of evading my patent and that all who purchase it would become equally liable. Also, that purchasers of the Virginia Reaper, made at Brockport, to be used in any other than Monroe and Orleans counties, would make themselves liable—that the manufacturers did not claim the right to dispose of them to be used any where else.

The foregoing, with the following testimonials, taken in connection with the fact that you may cut a whole field, if desirable, without binding a single bundle, with my Reaper, and that it will cut green and wet grain, grass, or weeds, without choking, will, I trust, satisfy any one wanting a Machine, of the superiority of mine. C. H. McCORMICK.

Rochester, June 22, 1850.

I found in the West that the farmers were of the opinion that the Reaper, fully employed, would more than pay for itself in a single harvest—that the expense of cutting wheat with it, and putting it into the stack, was from 60 to 70 cts. per acre, which the saving of grain scattered by the ordinary modes of cutting, nearly, if not quite, paid. Any one wanting a Reaper, who shall not be called upon by any of the agents authorized to sell them, can have one forwarded to any wheat County in this State, or to Erie County, Pennsylvania, if ordered of me, at this place, in season, by letter or otherwise, accompanied with a satisfactory reference. THOS. J. PATERSON.

Rochester, June 22 1850.

Letter of A. P. Dickey, Esq., brother-in-law to the Hon. George W. Paterson, Lieutenant Governor of New York, to whom reference may be had.

Messrs. McCormick, Ogden & Co., Chicago, Ill.—Gents:—I write to inform you in relation to the operation of your Reaper in Wisconsin, during the past harvest.

I sold 190 of McCormick's Improved Virginia Reapers in Wisconsin, during the spring and summer, on trial, or conditional warrantees, and now have the pleasure to inform you that they *all* have given entire satisfaction and fulfilled the guarantee given—The like circumstance is not known in any other farming implement sold in the Western States.

Every Reaper has done first rate business, and many farmers have told me on my calling on them, for the notes for the last payments during the harvest, that their Reapers had gone far beyond their expectations, especially when the hard storms had lodged the grain, and all other Machines for cutting were *useless*,—such as Esterly's Harvester, and Hussey's Reaper.

There were seven of Esterly's Harvesters in operation, for a few days, in Wisconsin at the commencement of harvest, and only one of them that succeeded in doing any business, while the other six were laid aside, and the farmers who had purchased them, hired your Improved Reaper to cut their grain, or were obliged to cut it with the cradle; and Hussey's Reaper could only cut from 7 to 8 acres per day by carrying the swath, as it has no reel. Hussey's Reaper cannot work in lodged grain, or even leaning grain, unless the Reaper be moving in an opposite direction from that to which the grain leans, while your Improved Reaper, with the Reel attached, can cut from 15 to 20 acres per day in the most perfect manner. It has cut the lodged and leaning grain as well as that which stood up fair, and has saved from one to two bushels of wheat per acre, that they could not get with the ordinary way of cutting grain. This, together with the easy draught of the Machine, render it the best Machine for cutting grain ever introduced in this western country. The Reaper can be relied on in *every emergency*. The cutting is perfect, whether the grain be stout or light. I have seen them work under all of these circumstances during the past harvest, and know the Reapers to have done good business, and in no case has it disappointed a farmer during this harvest.

I sold six Reapers to farmers who had purchased, tried, and laid aside, Hussey's Reaper, two or three of these men informed me that they had saved the cost of your Reaper in repairs and horse flesh, which would have been required, had they again attempted to get through their harvest this season with Hussey's Reaper—to say nothing of the great advantage your Reaper was in taking off to the side, and not requiring so much help to accomplish their harvest.

I could have procured any amount of certificates setting forth the good qualities of your Reaper, and its durability; but knowing its unprecedented success in Wisconsin, I thought such certificates would be entirely unnecessary to further the sales for next harvest. Yours, respectfully, A. P. DICKEY.

Racine, August 15, 1849

Letter of Hon. W. B. Ogden, late Mayor of Chicago.

This may certify that I have been acquainted with McCormick's Patent Virginia Reaper for three or four years past, and since its introduction, to any considerable extent, into the prairie States of the West. I was interested in the manufacture of 500 of them at the city of Chicago for the harvest of 1848, and of 1500 of them for the harvest of 1849. The demand greatly exceeded the supply in 1848, and was fully equal to it in 1849.

In August last I disposed of my entire interest in connection with said machines, and have now no interest or connection with them, whatever.

McCormick's Reaper, as improved and now manufactured, works perfectly, and performs all the patentee claims for it. It is peculiarly adapted to the wants of every grain-growing farmer whose lands are suited to its use, as any ordinary land free from too many stumps or large loose stones is, and it is a great labor and grain-saving Machine, as has been abundantly proved by the sale and successful use, under strong warrantees, of over 2500 of them in the North-Western States, within the last three years.

Several other harvesting Machines have been exhibited and tried, meanwhile, at the West, and often at the outset with good show of success, but as yet none have been found as free from serious practical difficulties, when thoroughly set to work in the field, as McCormick's; and many have been abandoned. None other than McCormick's has been extensively introduced there.

Mr. McCormick has exhibited to me the letters of A. P. Dickey, Esq., of Wisconsin, Isaac Pool, of Illinois, and S. S. Phelps & Co., of Oquawka, Illinois, which letters, with others, he advises me he proposes to submit to the committee of the American Institute upon agricultural implements, and it gives me pleasure to say that the statements made in the letters of Messrs. Dickey, Pool, and Phelps & Co., are entirely reliable and entitled to full credit.

W. B. OGDEN, of Chicago, Ill.

New York, October 3, 1849.

TO FARMERS AND GARDENERS!
SEYMOUR'S GRAIN DRILL.

THIS DRILL, which was patented in September, 1849, is one of the latest improvements in Drilling Machines, and better adapted to the wants of the farmer than any other now before the public. It sows or plants all kinds of grain and seeds, from peas, beans, corn and cotton, to the smallest seeds—and combines the advantages of sowing either broad-cast or in drills. It is an excellent Broad Cast Sowing Machine, when the drill teeth and conducting tubes, (which are very conveniently detached,) are taken off.

Many farmers soak their wheat in brine or other liquid, (in which the good seed sinks while the foul floats off,) for the double purpose of seperating it from foul seed and rolling it in lime, plaster, or other fertilizing substances. This has the advantage over other drills, inasmuch as it performs well in sowing grain thus prepared, while *they* utterly fail in the attempt Wet wheat, oats or white caps, which so readily clog other machines, are not serious obstacles in this. Those who wish to soak their seed for any purpose whatever, or mix with it any fine fertilizers, such as lime, plaster, bone dust, &c., and also those who prefer threshing with a flail, to avoid the injury done to the seed by threshing with a machine, will find *this the Drill for them.*

When drilling with this Machine, the grain falls from the grain-box to the tubes, (a space of six inches,) in full view of the person attending it, so that in passing over the field, he may be constantly assured that the seed is deposited as he designs. The teeth are all raised from the ground at once, with one lever, and the seed all stopped at once; or one may be raised at a time, and the seed it discharges stopped. The convenience and simplicity with which this Machine is managed is unparalleled. No necessary expense or pains have been spared in making it as desirable, in all respects, as possible; and after *many* and the most *satisfactory experiments*—not in the winter on the floor of the machine shop merely, but *in seeding time, with the farmer*, under various circumstances, on rough and smooth, hilly and level, stony and clear land—the inventor (who was bred a practical farmer, and ought to know something of the farmer's wants) feels assured that the Machine is not only established on correct principles, but is got up in that simple and permaneat style and good taste which cannot fail to suit all.

The first premium for a Grain Drill, capable of depositing fine manures with the grain, was awarded to this Machine at the Fair of the New York State Agricultural Society, held at Syracuse, in September, 1849. It also received the first premium at the Michigan State Fair, in 1849, and the first premium of the Ontario County Society.

Seymour's Garden Drill.

Is a small Machine of suitable size to be drawn by a man. It is got up on the principles of the Grain Drill, and will plant peas, beans, beets, and even carrots or any kind of garden seeds mixed with plaster, &c. It is very convenient for large gardeners, as it will sow five rows at once, as readily as the Garden Drills in common use will sow one, and is much less liable to clog

Seymour's Broad Cast Sowing Machine supplied to order.

RECOMMENDATIONS.

A few certificates, from the most reliable sources, are subjoined:

Mr. Seymour—Sir: With the Grain Drill which I purchased from you this season, my son, a lad 16 years of age, has put in about 50 acres of wheat for me, and with some of it about a bushel and a half per acre of ashes and hen dung was mixed and all to my entire satisfaction. He has also drilled in about 100 acres for others, and I believe all are well pleased with the Machine; and I must say I prefer it to any I have seen. IRA R. PECK.

East Bloomfield, Sept. 17, 1849.

Mr P. Seymour—Dear Sir: You ask for my opinion with regard to the Wheat Drill I purchased of you this fall. Without specifying particulars, I would express my unqualified approbation of it over that of any other which I have seen in use. I am somewhat enthusiastic on the subject of drilling, believing it will soon be universally adopted by farmers. I would not willingly disparage the patents of other individuals.

In haste, with great respect, yours, &c.,

Gates, Sept 10, 1849. CALVIN SPERRY.

This may certify that I have used Mr. Pierpont Seymour's Wheat Drill, and I consider it just the thing for putting in wheat. WM. OTIS.

Rochester, Sept. 7, 1849.

Lancaster County, Pa.

We, the undersigned, have seen and examined the Seed Drill of Pierpont Seymour, of New York State, in all its operations, and verily believe it to be the best we have ever seen, and will, we have no doubt supersede all others now in use.

EDWARD LAMMEY, FREDERICK ZARRACHE,
JOHN HUDDERS, DAVIS ATKINS,
ROBERT W. HUDDERS, Mach., ELI ROBERTS,
WM H. MILLHOUSE, JAMES H. NOBLE

Chester County.

We have also seen the operation of the above Machine, and fully concur in the utility of the Machine, and will, we have no doubt, supersede all other Machines now before the public.

HENRY A. JOHNSON, REUBEN CHALFANT,
ENOCH L. TAYLOR, JOHN S. CARLILE,
CLOUD CHALFANT, EUCLIDES P. SHELTON,
JOHN M. KELTON.

Mr. Seymour—Sir: I have used the Grain Drill I purchased of you to drill spring wheat. A part of the field I sowed broad cast. The appearance of the crop is now in favor of the part put in with the Drill. I have also used the Drill to sow field beets, and am satisfied that the seed can be distributed as evenly and expeditiously as any grain, which is at the rate of about ten acres a day. The Machine, by taking off the drill teeth, makes a good Broad Cast Sowing Machine, which is valuable for sowing plaster, clover seed, and any grain a person wishes to sow broad cast. I believe the Drill and Broad Cast Sowing Machine will soon come into general use. HARLOW MUNSON.

East Bloomfield, June 1, 1849.

I have examined certain certificates in the the hands of Mr. Seymour, in favor of his Grain Drill, one of them from Ira R. Peck. I am personally acquainted with Mr. Peck. His statement can be fully relied on. The other certificates, I have no doubt, are from equally reliable sources. I have myself heard the Drill spoken of in high terms of commendation, by farmers who have used it; and have also seen it in operation, and believe it to be at least one of the very best in use. I was present at the State Fair in September last, where the first premium was awarded to Mr. Seymour for his Drill. I have the confidence that any statement which Mr. Seymour would be likely to make in regard to his Drill, would be strictly true. ISAAC W. MITCHELL.

East Bloomfield, Feb. 5, 1850. Justice of the Peace.

☞ Many other certificates of the same import have been received from many persons in this and other States, which are not deemed necessary to specify.

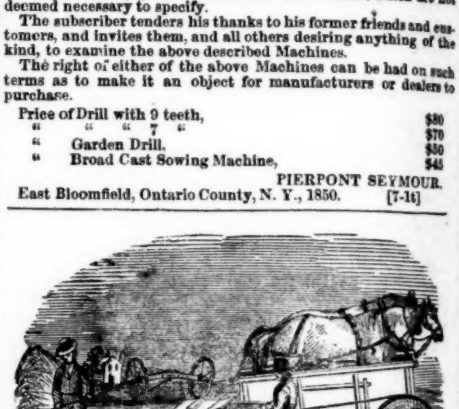
The subscriber tenders his thanks to his former friends and customers, and invites them, and all others desiring anything of the kind, to examine the above described Machines.

The right of either of the above Machines can be had on such terms as to make it an object for manufacturers or dealers to purchase.

Price of Drill with 9 teeth, $80
" " " 7 " $70
" Garden Drill, $50
" Broad Cast Sowing Machine, $45

PIERPONT SEYMOUR.

East Bloomfield, Ontario County, N. Y., 1850. [7-1t]



Wheeler's Patent Improved Railway Chain Horse Power and Overshot Thresher and Seperator.

THE subscribers would respectfully say to the farmers and others of Western New York, that they have been appointed the General Agents, for the sale of the above Machines, by the manufacturers, Messrs. Wheeler, Mellick & Co., of Albany, and that they are prepared to fill all orders at Albany prices—adding only transportation.

These Machines are favorably known wherever they have been used or exhibited. They have taken premiums at many different State and County Fairs held in Massachusetts, New York, New Jersey, Pennsylvania, Ohio, and also in Canada, never having competed for premiums without success and flattering commendations.

As many as 2,000 of them are now in use, of which over 500 were sold the past season.

The accompanying cut gives a view of a two horse Machine at work, with the hands necessary to attend it. It will thresh from 125 to 200 bushels of wheat, or twice the quantity of oats per day. The one horse or single Machines, thresh rather more than half as fast as the double ones [For further particulars see advertisements of Wheeler, Mellick & Co., in previous numbers of the Genesee Farmer.]

All Machines warranted to work well, or they may be returned within three months and the money refunded.

RAPALJE & BRIGGS.

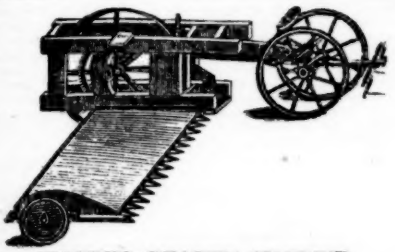
July, 1850. 65 Buffalo st., Rochester.

Harvest Tools.

A great variety of Scythes and Snaths, Grain Cradles, Hand and Horse Rakes, Hay Forks, &c.

A. B. ALDEN & CO.,

[7-1t] 189 and 191 Water st., New York.



HUSSEY'S REAPING MACHINE.

WE would respectfully call the attention of farmers to the fact that we have the exclusive agency and the exclusive sale of the above named Reaper, in all that part of the State of New York west of Ontario county, and we are also general agents for the United States and Canada. We sell the Reapers at the Manufacturer's prices, adding only cost of transportation. They can be examined at our Store. All who design purchasing are earnestly requested to hand in their orders at once, as this will enable us to have on hand in season all that may be required, and prevent any being disappointed, as might be the case if orders were delayed till the harvest had begun. That they are the best Reapers made, and that it would be greatly to the advantage of farmers to have them, there is no doubt.

Annexed are a few of the many certificates which might be given:

MACEDON, Aug. 29, 1849.

Messrs. Rapalje & Briggs—Gents:—The Reaping Machine I bought of you, made by Messrs. Eldred & Hussey, at Auburn, has been thoroughly tested by me the present harvest, and I am happy to say has exceeded my most sanguine expectations I have cut with it 125 acres of wheat, besides my own crop, making some 200 acres of oats and wheat; and I can confidently recommend it to my brother farmers as just the machine they want. I have cut 12 acres of oats in half a day, and 20 acres of stout wheat in one day, with three horses abreast, and most of it was bad cutting I think I can cut 25 acres of good wheat in a day, and do it better than can be done in any other way My machine is now in perfect order, and I consider it full as good as when I got it of you.

Yours most respectfully, THOS. RUSHMORE.

WHEATLAND, August 20, 1849.

Messrs. Eldred & Hussey—Gents:—I have now used one of your Reaping Machines for two years, and do most cheerfully say that it has given the best satisfaction. I have cut my whole harvest and a large one too, with my ordinary farm hands. I have cut 20 acres of stout wheat a day with ease, and I would most cheerfully recommend it to my brother farmers as the best and most economical machine that is used on a farm. In fact I think so much of it, that five hundred dollars would not induce me to part with it if I could not get another. I have also two brothers, each of whom have one of your machines, which they like very much, and could not be induced to be without. I think your agents, Messrs. Rapalje & Briggs, will sell a large number of them in our county next season, as many of my acquaintances have told me they intend to purchase one of your Reapers another season. ANAN HARMON.

BERGEN, Sept. 1st, 1849.

This is to certify that I have this season used one of Hussey's Reaping Machines, which I purchased of Messrs. Rapalje & Briggs, of Rochester, and that it gives perfect satisfaction. I have cut my wheat, which was very badly lodged, much faster, better, and cheaper than it could be done any other way. I have had one of McCormick's for the last three years, and it now stands in the road as a useless article, as I consider it, having tried to use it for three years without any success.

I consider Hussey's Machine just the thing for our farmers, and I could not now, after proving its merits, be induced to be without one. NOAH WILBUR.

GREECE, Sept. 7th, 1849.

Messrs. Rapalje & Briggs—Gent'n:—The Reaping Machine bought of you by Mr. Champion, for me, exceeds any thing of the kind I ever saw. You will remember that when I got it I said to you I was sure it would not work in my badly lodged wheat, as I had seen McCormick's tried repeatedly, and it was a perfect failure; but I was most agreeably disappointed. It cut any of my wheat better and faster than eight good cradlers could do, and I think it saved me from two to three dollars per acre in all my lodged wheat, in getting it clean and fast. In short, too much cannot be said in its favor. I would not sell it, if I could not get another, for one thousand dollars, for should I raise as much wheat for eight or ten years to come as I have for the last ten, it would save me more than that sum, and I think it will last me longer than that time. Yours, most respectfully, J. NORTON.

June 1, 1850. RAPALJE & BRIGGS,

Genesee Seed Store and Ag. Warehouse, Rochester, N.Y.

Burrall's Clover Mill.

FOUR sizes made and sold by the Subscriber at Geneva N. Y. warranted to be thoroughly built and to work well. Among other premiums awarded, this Machine was the first, at the late State Fair.

Orders from abroad, or inquiries in respect to it, promptly attended to. [4-4t] E. J. BURRALL.

Allen's Improved Portable Railroad Horse Power, Thresher, and Separator.

THE advantages of the above horse power, are—1. They occupy but little more space than a horse. 2. They can be moved by the weight of the horse only, by placing the machine at an angle of 10 or 15 degrees. 3. They are easily transported, simply constructed, not liable to get out of order, and move with little friction.

The Overshot Threshers consist of a small-spiked cylinder, with a concave top, and possesses these advantages. 1 They have a level table for feeding, thus enabling the tenders to stand erect, and control the motions of the horse and machine by means of a brake, by which accidents are avoided. 2. In consequence of the spikes lifting the straw and doing the work on the top, stones, blocks, &c., drop at the end of the table, and are not carried between the spikes. 3. The overshot cylinder does not scatter the grain but throws it within three feet of the machine. 4. This arrangement also admits of attaching a *separator* high enough from the floor or ground to allow all the grain to fall through it, while the straw is deposited by itself in the best condition for binding. 5. Neither grain nor straw are broken by this machine. 6. The cylinder is long, which admits of faster and more advantageous feeding; it is smaller and with fewer teeth than ordinary threshers, thus admitting of more rapid motion and faster work with less power; and the diminution of teeth in the cylinder is fully made up by an increased number in the concave top, which is stationary. 7. The seperator is a great advantage in diminishing the labor of raking out the straw, as it leaves the grain in the best condition for the fanning mill. Three men with a single power, can thresh 100 to 150 bushels of grain per day; and four men with a double power, twice that quantity. All the above are compact and can be carried where wanted, complete, or they may be readily taken apart and packed for distant transportation by wagon or otherwise.

Price of single Power,	$80
" " Thresher,	$28
" Seperator and fixtures,	$7
" Bands for driving, etc.,	$5
" Wood-sawing machine, complete, and in running order,	$35.
Price of Double Power,	$100
" with Thresher, Seperator, &c.,	$145 to $150

All the above are sold singly or together, as desired, and are warranted to work well and give satisfaction.

Also, Taplins 20 feet circular, and the Cast Iron Sweep Powers. Enquire at the New York Agricultural Warehouse and Seed Store of A. B. ALLEN & CO., 189 and 191 Water st., New York.

WHEAT! WHEAT!!

To Wheat Growing Farmers! Save Time and do your work well!

SAGE'S BROAD-CAST SOWER AND SPRING-TOOTH HARROW, is the cheapest and most effective labor saving machine yet invented for wheat growing districts, being so simple in its construction, that any ordinary workman can fit one up to work with perfect accuracy, and so cheap as to be within the reach of all.

This Machine drew the first premium at the State Fair at Syracuse, and requires but five minutes' examination, by any practical farmer or mechanic, to satisfy them that it will perform the work of sowing and harrowing accurately and effectually, and with as much dispatch as can reasonably be desired.

With a Machine that will not require more power than a common plow, one man and horse team can sow accurately, and harrow once over, 20 or 25 acres in a day, or from one to one and a half acres for every mile the team walks, according to the size of the Machine.

Letters Patent were obtained for the above article April 16, 1850. All communications, post paid, addressed to S. SAGE, Windsor, Broome county, N. Y., will receive prompt attention.

Windsor, May 20, 1850. [7-1t*]

Seymour & Morgan's Improved Reaping Machine.

HAVING observed in the last number of the Farmer, an advertisement by C. H. McCormick, in which he alluded to the Improved Reaping Machine, manufactured by us, we would merely say, in reply, that what he so respectfully states in regard to our Machine being inferior to his, is not worthy of notice, from the fact, that wherever the two Machines are exhibited, to those who are best calculated to judge of their merits, ours *never fails to take the preference*; and the gentleman having *learned from experience* that he cannot compete with us in a fair business-like manner in selling, has tried to frighten us from making our machine.—And now, as a last resort, he threatens the farmers, to prevent them buying of us, and at the same time (very disinterestedly of course,) offers to furnish them with his.

We will also say to purchasers, that we have but few Machines remaining unsold, and these we propose to furnish to those who wish a first rate article, and, at the same time, guaranty the right to use them, as we shall show Mr. McCormick, should he ever give us occasion, that our only *infringement is on his business*, and *not on his patent*. SEYMOUR & MORGAN.

Brockport, June 12, 1850. [7-1t]

BACK VOLUMES of the Farmer we can furnish bound. Also, all works on Agriculture and Horticulture, Poultry, Sheep, &c.

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Wheeler's Patent Improved Railway Chain Horse Power and Overshot Thresher and Seperator.

THE subscribers, Proprietors of the Patent for these Machines, and manufacturers of them, having recently increased their facilities for manufacturing, are now prepared to fill orders for Machines, and to establish agencies, to any extent that may be desired.

These Machines are favorably known wherever they have been used or exhibited. They have taken premiums at many different State and County Fairs held in Massachusetts, New York, New Jersey, Pennsylvania, Ohio, and also in Canada, never having competed for premiums without success and flattering commendations.

As many as 2,000 of them are now in use, of which over 500 were sold the past season.

The accompanying cut gives a view of a two horse Machine at work, with the hands necessary to attend it. It will thresh from 125 to 200 bushels of wheat, or twice the quantity of oats per day. The one horse or single Machines, thresh rather more than half as fast as the double ones.

These Horse Powers are strong and durable, and run extremely light. With one end of the power slightly elevated (as represented in the annexed cut) *the weight of the horse alone* affords sufficient power to thresh at the rate before stated, or to drive circular and upright saws, or any other machines used by farmers, requiring propelling power.

THE OVERSHOT THRESHER

takes the grain from a level feeding table or apron, (of a proper height to allow the feeder to stand erect, and feed without annoyance from dust,) and passes it through a toothed or spiked concave or bed, placed over the cylinder. A recent improvement admits of lowering the concave so as to bring it nearer the cylinder, and at the same time so varying the inclination of the spikes as to set the machine for threshing tough or damp grain, or short oats, and re-setting it at pleasure, for long rye or wheat, or oats in good order or for timothy grass or clover; and all this is accomplished without stopping the Machine, so simple is the process. By means of the Separator, the straw, as it comes from the Thresher, is effectually separated from the grain.

The *Power, Thresher and Separator*, complete, for either one or two horses, is easily loaded on a common farm wagon; but where frequent moving is desired, the two horse machines are placed on wheels in such a manner that when used for threshing, the forward wheels are removed, dropping that end of the power, and leaving the opposite end elevated on the other axle, ready to receive the horses. By this arrangement, (which has been made for the convenience of those who make threshing a business, and for partnership machines,) two men can with ease set a two horse machine ready for work in fifteen minutes, and re-load it for moving in the same time.

W., M. & Co., also manufacture Stalk, Hay, and Straw Cutters, to be used with their horse powers; and also Circular Saws, and Benches, for cutting ordinary fire wood, and locomotive and other fuel.

Every machine made or sold by W., M. & Co., or their agents, is WARRANTED to work to the satisfaction of the purchaser, or it may be returned to them, or to the Agent of whom it may have been purchased, within sixty days, and the purchase money [if paid] will be refunded.

These machines are so light, compact, and easily handled, as to admit of transportation to any part of the country with trifling expense. The weight of the two horse machine, complete, being less than 2,000 lbs., and of the one horse, about 1,200.

The manufacturers are now establishing agencies in all parts of the United States and Canada, where they are needed to facilitate the sale of these machines. Good agents are wanted in the Southern and Western States and the Canadas, to whom liberal commissions will be allowed.

Our agents, as far as definitely ascertained, are—Rapalje & Briggs, Rochester; T. C. Peters & Brother, Buffalo; Peter R. Sleight, Esq., Poughkeepsie; F. F. Parker & Brother, Detroit; John Melick, Trenton, N. J.; John Bowsfield, Kirkland, Ohio; F. R. Elliot, Cleveland, Ohio; James Williams, Bakers Town, Allegany Co., Pa.; Spears, Case & Co., Delphi, Indiana; W. B. Arnold, Franklin Centre, Iowa; Ephraim Abbott, St. Louis, Mo. W. D. Bacon, Waukesha, is general agent for Wisconsin.

These machines may also be had of John Mayher & Co., New York city. WHEELER, MELICK & CO.,

Hamilton st., corner of Liberty and Union sts., Albany, N. Y.; and Chicago, Illinois.

May 1, 1850.

Miner's Bee Hive.

THIS beautiful and highly valuable practical Hive, is unsurpassed by any other in the United States. The Rights are in pamphlet form, with full engravings, and ample directions to make it. Price $2 only; sent by mail to any section of the country. This is positively the only Hive of *real* merit to be had.

Also, the AMERICAN BEE-KEEPER'S MANUAL, 350 pp., 35 fine engravings; the most popular work ever published on the culture of bees. Price $1; sent by mail also. Address to this office, *post-paid*.

Gen. Farmer Office, Rochester, June, 1850. [6-tf]

First in Beauty and Value—Cheapest and Most Popular.

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF

Farm Buildings, Domestic Animals, Implements, Fruits, &c

VOLUME XI, FOR 1850.

DANIEL LEE & JAMES VICK, JR., EDITORS.

P. BARRY, Conductor of Horticultural Department.

Fifty Cents a Year, In Advance.

FIVE Copies for $2; Eight Copies for $3, and any larger number at the same rate.

☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

☞ POST-MASTERS, AGENTS, and all friends of improvement, are respectfully solicited to obtain and forward subscriptions.

Subscription money, if properly enclosed, may be sent (postpaid or free,) at the risk of the Publisher. Address to

DANIEL LEE.

December, 1849. *Rochester, New York*

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.